

103
CHEMICAL WEAPONS CONVENTION
(TREATY DOC. 103-21)

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Chemical Weapons Convention, (Treat...

HEARINGS

BEFORE THE

COMMITTEE ON FOREIGN RELATIONS
UNITED STATES SENATE

ONE HUNDRED THIRD CONGRESS

SECOND SESSION

MARCH 22, APRIL 13, MAY 13 AND 17, JUNE 9 AND 23, 1994

Printed for the use of the Committee on Foreign Relations



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CHEMICAL WEAPONS CONVENTION (TREATY DOC. 103-21)

TUESDAY, MARCH 22, 1994

UNITED STATES SENATE,
COMMITTEE ON FOREIGN RELATIONS,
Washington, DC.

The committee met at 10:02 a.m., in room SD-419, Dirksen Senate Office Building, Hon. Claiborne Pell (chairman of the committee) presiding.

Present: Senators Pell, Kerry, Simon, Feingold, Helms, Lugar, Pressler, and Brown.

The CHAIRMAN. The Committee on Foreign Relations will come to order.

I will postpone my opening statement while we listen to the Secretary. The fact is that he is coming up himself to testify because of the importance he attaches to this treaty. Following that, the minority member and myself will have statements, but you will be excused unless you are fascinated with wanting to hear us and then we would be delighted. Secretary Christopher.

STATEMENT OF HON. WARREN CHRISTOPHER, SECRETARY OF STATE

Secretary CHRISTOPHER. Thank you very much, Mr. Chairman. I am here today to express strong support for the Chemical Weapons Convention and to seek the Senate's expeditious advice and consent to its ratification. As you well know, Mr. Chairman, nonproliferation is a strategic priority for our foreign policy and I believe the most urgent arms control issue of the 1990's.

Before I discuss the Chemical Weapons Convention, let me say a few words about a nonproliferation issue that has certainly been on our minds for the last few weeks: the international effort to halt North Korea's nuclear program. As I was thinking about it last night, Mr. Chairman, I thought it would be quite surprising if I appeared today on a nonproliferation subject without just saying a few words about North Korea.

Over the last year, since North Korea announced its intention to withdraw from the Nuclear Non-Proliferation Treaty, we have pursued a steady, deliberate policy. Our objective is to bring North Korea back into full compliance with its NPT obligations and to restart talks with the Republic of Korea aimed at a denuclearized Korean Peninsula.

As you know, our diplomatic efforts have now reached an impasse. The North Koreans did not permit the International Atomic Energy Agency to conduct essential activities during the recent in-

spections. As a result, the agency is unable to certify that the North is not diverting or producing nuclear material for nonpeaceful purposes. Yesterday the agency's board of governors passed a resolution referring this matter to the U.N. Security Council. The North has also broken off negotiations with South Korea on exchanging envoys to discuss the nuclear issue.

We will now turn to the Security Council where deliberations with respect to this important subject have already begun. We expect that the council will soon consider a resolution calling on North Korea to complete the inspections. If there is no change in the North's attitude, sanctions will be an option soon to be considered. The United States is seeking the broadest possible international support to persuade North Korea to comply with its international nonproliferation obligations.

Our diplomacy has now reached a critical point. We have made it clear to North Korea that it must become a responsible member of the international community or that community will have no choice but to pursue other options. These other options include progressively stronger measures.

Our commitment to South Korea's security remains firm. We are prepared to take all necessary steps to ensure that the North does not misread our determination to deter aggression. The United States and South Korea offered to suspend the team spirit 1994 military exercise that we have annually with South Korea on the premise that North Korea would fully implement the International Atomic Energy Agency's inspection and also exchange envoys with the South to discuss the nuclear issue. Because these steps have not been taken, we are now consulting with South Korea on re-scheduling team spirit 1994.

The United States and South Korea, as you know, have also agreed to deploy Patriot missiles to South Korea immediately. This deployment is a prudent and defensive response to the threat posed by North Korea's ballistic missiles.

Mr. Chairman, this is clearly a difficult situation. It remains a critical foreign policy issue and we will continue to pursue a steady and resolute course with respect to this matter.

Let me now turn to our brief discussion of the Chemical Weapons Convention. Ratification of the Convention is a high priority for our administration.

President Clinton has described the Convention as being one of the most ambitious treaties in the history of arms control, one that bans an entire class of weapons of mass destruction. It will significantly enhance our national security and contribute greatly to worldwide security when it is ratified by the United States and other nations.

In his speech to the General Assembly last September, the President called on all countries to ratify the Convention quickly so that it can enter into force at the earliest possible time, January 1995. To meet this goal, the United States and others must complete their ratification procedures in time to deposit their instruments of ratification with the Secretary-General of the U.N. by July 17 of this year. Hence, this hearing marks a historic and critical step toward bringing the Convention into force.

It is important, Mr. Chairman, to recognize the long history of this Convention and the strong bipartisan support that it has had over the years. For more than 25 years under both Democratic and Republican administrations, the United States has participated in international negotiations for a Chemical Weapons Convention. This Convention that is before you today would fulfill a U.S. objective of even longer standing, the total elimination of chemical weapons.

Much has been done in the last 2 years to achieve this goal. The Bush administration helped conclude negotiations in Geneva. The U.N. endorsed the Convention. The Convention was opened for signature in Paris. Then the Convention was signed by Secretary Eagleburger on behalf of the United States and, to date, by more than 150 countries around the globe. President Clinton submitted the Convention to the Senate for ratification last November.

Other nations are awaiting U.S. action. They are looking to us to exert the leadership that is necessary to bring this treaty into force. Every move we make on the Convention sends an important message around the world. For that reason, I urge Senate action just as soon as possible.

The Chemical Weapons Convention is both a disarmament and a nonproliferation treaty. It addresses the demand for and the supply of chemical weapons. It requires parties to destroy their chemical weapons and also their production facilities and to open up these former facilities to international inspection. The treaty also prohibits them from transferring chemical weapons to others or assisting any nation in doing something that is prohibited by the Convention. States that are parties to the Convention must ban trade in specified chemicals with countries that decline to join the Convention. Finally, in the event that chemical weapons are used or threatened to be used against parties, the Convention contains procedures for assistance to those who are endangered or threatened by other countries.

The Convention thus promises to eliminate a scourge that has hung over the world for almost 80 years. Unfortunately, as we all remember, the threat chemical weapons pose to innocent civilians is not merely theoretical. Chemical weapons were first used in World War I. They have been used in local conflicts ranging since that time from Ethiopia in 1935 to the Iran-Iraq war in the 1980's and also by Iraq against its citizens.

The United States originally pursued the Convention during the cold war to eliminate the massive Soviet stockpiles. Now the good news is that, with the support of Congress, we are helping Russia to destroy its chemical weapons. The United States is already legally required to eliminate the majority of its own stockpile, irrespective of the Convention, and we are in the process of doing so. U.S. ratification will encourage Russia to ratify as well and to destroy the huge stocks of such weapons that it built up during the Soviet period.

The Convention is even more important in addressing the threat posed by chemical weapons in regions such as the Middle East and South Asia. Indeed, the Convention can play a vital role in stabilizing the post-cold war world, a world in which dangerous low-intensity conflicts can be made even more lethal if chemical weapons

were used. The Convention's destruction and verification provisions can build confidence among potential rivals that they need not fear a chemical arms race.

The Convention's export control requirements and its prohibitions on assistance to chemical weapons programs in other countries will support our global strategy for curbing the proliferation of weapons of mass destruction. It will also complement the nuclear Non-Proliferation Treaty and its Biological Weapons Convention.

More important, the Convention will help protect our allies and friends from chemical attack, as well as protecting our troops abroad. As I said, Mr. Chairman and members, American leadership is essential to persuade other countries to ratify the Convention. We cannot effectively lead, of course, if we have not ourselves ratified the Convention. So, I urge the Senate to heed the President's call and to provide expeditious advice and consent to this Convention. With your help I think we are sure to be able to continue the longstanding bipartisan efforts to achieve a global ban on these terrible, inhuman weapons.

Mr. Chairman and members, I would now like to turn the floor over to the Director of ACDA, John Holum, a longtime friend and colleague of mine. John and I are working closely together on arms control and nonproliferation matters. John will continue to spearhead our efforts to achieve the earliest possible entry into force of the Convention.

Thank you very much, Mr. Chairman and members, for letting me come up here to make this brief statement to indicate my own strong support for this Convention which has had a bipartisan history and which I think is very important we put into effect just as soon as possible.

[The prepared statement of Secretary Christopher follows:]

PREPARED STATEMENT OF SECRETARY CHRISTOPHER

Mr. Chairman: I am here today to express strong support for the Chemical Weapons Convention and to seek the Senate's expeditious advice and consent to its ratification. As you know, non-proliferation is a strategic priority of our foreign policy and the most urgent arms control issue of the 1990s.

Before I discuss the Chemical Weapons Convention, let me say a few words about a non-proliferation issue that has certainly been on all of our minds these last few weeks: the international effort to halt North Korea's nuclear program. I think it might be quite surprising if I appeared today without referring to this issue.

Over the last year, since North Korea announced its intention to withdraw from the Nuclear Non-Proliferation Treaty (NPT), we have pursued a steady, deliberate policy. Our objective has been to bring North Korea back into full compliance with its NPT obligations and to restart talks with the Republic of Korea aimed at a denuclearized Korean peninsula.

As you know, our diplomatic efforts have reached an impasse. The North Koreans did not permit the International Atomic Energy Agency (IAEA) to conduct essential activities during its recent inspection. As a result, the Agency is unable to certify that the North is not diverting or producing nuclear material for non-peaceful purposes. Yesterday, the Agency's Board of Governors passed a resolution referring this matter to the UN Security Council. The North also has broken off negotiations with the South on exchanging envoys to discuss the nuclear issue.

We will now turn to the Security Council, where deliberations have already begun. We expect that the Council will soon consider a resolution calling on the North to complete the inspections. If there is no change in the North's attitude, sanctions will be an option. The United States will seek the broadest possible international support to persuade North Korea to comply with its international non-proliferation obligations.

Our diplomacy has reached a critical point. We have made it clear to North Korea that it must become a responsible member of the international community or that community will have no choice but to pursue progressively stronger measures.

Our commitment to South Korea's security remains firm. We are prepared to take all steps necessary to ensure that the North does not misread our determination to deter aggression. The United States and South Korea offered to suspend the Team Spirit '94 military exercise on the premise that North Korea would full implement the IAEA inspection and exchange envoys with the South to discuss the nuclear issue. Because these steps have not taken place, we are consulting with South Korea on rescheduling Team Spirit '94.

The United States and South Korea have agreed to deploy Patriot missiles to South Korea immediately. The deployment is a prudent and defensive response to the threat posed by North Korea's ballistic missiles.

Mr. Chairman, this is a difficult situation. It remains a critical issue in our foreign policy and we will continue on a steady and resolute path to resolve it.

Let me now turn to our discussion of the Chemical Weapons Convention. Ratification of the Convention is a top legislative priority for this Administration.

President Clinton has described the Convention as one of the most ambitious treaties in the history of arms control, one that bans an entire class of weapons of mass destruction. It will significantly enhance our national security and contribute greatly to global security.

In his speech to the U.N. General Assembly last September, the President called on all countries to ratify the Convention quickly so it can enter into force at the earliest possible time, January 13, 1995. To meet this goal, the United States and others must complete their ratification procedures in time to deposit their instruments with the UN Secretary-General by July 17.

This hearing marks a historic and critical step toward bringing the Chemical Weapons Convention into force. For more than 25 years, during Republican and Democratic administrations, the United States has participated in international negotiations on the Chemical Weapons Convention. The Convention would help fulfill a U.S. objective of even longer standing—the global elimination of chemical weapons.

Much has been done in the last two years to achieve this goal. The Bush Administration helped conclude negotiations in Geneva; the UN endorsed the Convention; the Convention was opened for signature in Paris; the Convention was signed by Secretary Eagleburger on behalf of the United States and, to date, by more than 150 other countries; and President Clinton submitted the Convention to the Senate on November 23, 1993.

Other nations are awaiting U.S. action. They are looking to us to exert the leadership that is necessary to bring this treaty into force. Every move we make on the Convention sends an important message around the world. For that reason, Senate action is now vital.

The Chemical Weapons Convention is both a disarmament and a non-proliferation treaty. It addresses the demand for, and the supply of, chemical weapons. It requires parties to destroy their chemical weapons and production facilities and to open their chemical industries to international inspection. It prohibits them from transferring chemical weapons to others or assisting any other nation in any activity prohibited under the Convention. States that are party to the Convention also must ban trade in specified chemicals with countries that decline to join the Convention. Finally, in the event chemical weapons are used or threatened to be used against parties, the Convention contains procedures for assistance to those endangered or threatened.

The Convention promises to eliminate a scourge that has hung over the world for almost 80 years. Unfortunately, the threat chemical weapons pose to innocent civilians is not merely theoretical. Chemical weapons have been used in the First World War, in local conflicts ranging from Ethiopia in 1935 to the Iran-Iraq War in the 1980s, and by Iraq against its citizens.

The United States originally pursued the Convention during the Cold War to eliminate massive Soviet stockpiles. Now, with the support of Congress, we are helping Russia destroy its chemical weapons. The United States already is legally required to eliminate the majority of our stockpile, irrespective of the Convention, and we are doing so. U.S. ratification will encourage Russia to ratify as well, and to destroy the huge stocks it inherited from the former USSR.

The Convention is even more important in addressing the threat posed by chemical weapons in regions such as the Middle East and South Asia. The Convention can play a vital role in stabilizing the post-Cold War world, a world in which dangerous low-intensity conflicts can be made even more lethal by chemical weapons.

The Convention's destruction and verification provisions can build confidence among potential rivals that they need not fear a chemical arms race.

The Convention's export-control requirements and its prohibitions on assistance to chemical weapons programs in other countries will support our global strategy of curbing the spread of weapons of mass destruction. They also will complement the Nuclear Non-Proliferation Treaty and the Biological Weapons Convention.

Most important, the Convention will help protect our allies and friends from chemical attack, as well as our troops deployed abroad. American leadership is essential to persuade other countries to ratify the Convention. We cannot lead if we have not ratified the Convention. I urge the Senate to heed the President's call and to provide your expeditious advice and consent to ratification. With your help, we can continue long-standing, bipartisan efforts to achieve a global ban on these terrible weapons.

Mr. Chairman, I would like to now turn the floor over to the Director of ACDA, John Holm, an old friend and colleague. We are working closely together to execute our arms control and non-proliferation policy, and John will continue to spearhead our efforts to achieve the earliest possible entry into force of the Convention.

The CHAIRMAN. Thank you very much, indeed.

I will change the procedure a little in that Senator Helms, who is the ranking minority member, wishes to speak in your hearing, and my remarks will follow afterward.

Senator HELMS. Well, I certainly will be brief and I will say good morning, Mr. Secretary. Obviously, you did not encounter the same traffic that I did coming in this morning.

Mr. Chairman, I know you have already welcomed the Secretary privately and personally, and I join you in that.

I have no statement beyond my wish to express my appreciation to the Secretary and to Assistant Secretary Wendy Sherman for their willingness to try to be helpful to American citizens whose property has been expropriated by foreign governments.

Mr. Secretary, I want you to know that I especially appreciate your letter of this past Thursday, March 17, in regards to this issue, and I would mention, however, just one sentence in your letter reading, "Next week, an interagency team will go to Nicaragua to meet with American claimants and the Chamorro government."

I think you will find, Mr. Secretary, that the vast majority of the claimants already now reside in the United States. In fact, our records show that of those 670 claimants, 95 percent reside in the United States.

But I do thank you, Mr. Secretary, and I ask for unanimous consent, Mr. Chairman, that Secretary Christopher's March 17 letter be made a part of the record.

[The letter referred to follows:]

U.S. DEPARTMENT OF STATE,
WASHINGTON, DC,
March 17, 1994.

Senator HELMS,
U.S. Senate, Washington, DC

DEAR SENATOR HELMS, I want to thank you for your recent letters regarding the problems that American citizens are having in recovering losses due to the expropriation of their properties by foreign governments.

As I noted in my testimony last month, I am not satisfied that we are doing all we can on this problem. We are now developing a more active approach for dealing with expropriations and other investment disputes and, in particular, for tackling the special problems we face in Nicaragua. Next week, an interagency team will go to Nicaragua to meet with American claimants and the Chamorro government. We are most interested in consulting with you and your staff on this issue. I have asked that Assistant Secretary Wendy Sherman contact your staff to arrange meetings between Department of State representatives and your office to discuss approaches that will yield improved results.

Thank you for your continued concern for this matter. We look forward to working with you toward reaching a mutually agreeable plan for assisting these Americans in resolving their disputes.

Sincerely,

WARREN CHRISTOPHER,
Secretary of State.

The CHAIRMAN. Thank you very much, indeed, for that harmonious statement.

I have a little opening statement to make here. Then we will hear Mr. Holum.

I would add that when we achieve the success of having 11 bodies up here, we will break in order to try to pass out some nominations.

This morning the Committee on Foreign Relations begins its series of hearings on the Chemical Weapons Convention. This Convention, concluded by the Bush administration, opened for signature in January 13, 1993, with the United States as the initial signatory.

The administration has made it clear that it hopes for early ratification. In a letter to me on March 4, 1994, thanking our committee for scheduling hearings, Secretary Christopher expressed the hope that the United States would be able to deposit its instrument of ratification by July 17 of this year, 180 days prior to the earliest date of possible entry into force.

The administration has my firm commitment to move expeditiously on this treaty, but all concerned should also be aware that I intend that the work be thorough. The last Chemical Weapons Treaty before the Senate, the Geneva Protocol of 1925, which banned the use of a war of chemical weapons, took 50 years—50 years—to gain Senate approval. I believe this treaty will in the end prove that it merits our support, but I intend to ensure that all aspects of it are explored thoroughly to the Senate's satisfaction before the committee considers the resolution of ratification.

This hearing will be followed in April and May by hearings with the negotiators, the civilian leadership of the Department of Defense, our military leaders, representatives of the CIA, outside experts. We will deal with the concerns that might arise in the course of that hearing process in anticipation of a committee final markup of a resolution of ratification this summer if possible. This should allow consideration by the full Senate at a reasonably early date this year.

We have already heard from Secretary Christopher and now we look forward to hearing from the Honorable John D. Holum, Director of the Arms Control and Disarmament Agency. Mr. Holum.

STATEMENT OF HON. JOHN D. HOLUM, DIRECTOR, U.S. ARMS CONTROL AND DISARMAMENT AGENCY

Mr. HOLUM. Thank you, Mr. Chairman, very much. I would like to first join Secretary Christopher in thanking you and the committee for scheduling this first ratification hearing on the Chemical Weapons Convention. This hearing demonstrates strong U.S. leadership in global arms control. Your efforts will surely encourage other countries to proceed on the road to ratification so we can have entry into force early next year.

Stopping the proliferation of weapons of mass destruction is at the very top of President Clinton's foreign policy agenda. I appear before you today in support of the President's pledge to the American people that his administration will marshal all the necessary resources and efforts to combat the scourge of chemical and other weapons of mass destruction.

As you know, chemical weapons have long been recognized as a profoundly inhumane and indiscriminate method of warfare. As long ago as 1925, the Geneva protocol banned the use of chemical weapons in war. However, reservations turned the protocol into a no-first-use treaty. The right to develop and maintain chemical arsenals remained intact.

Recognizing the obvious limits of the 1925 protocol, the international community struggled over a 25-year period to negotiate a comprehensive Chemical Weapons Convention. When the negotiations at last concluded in September 1992, the conference had fashioned a treaty regime with the most comprehensive ban ever devised against a single type of weapon of mass destruction.

Members of the committee are well aware of the dangers posed by chemical weapons. The worldwide threat has grown and chemical weapons threats today are far more diverse and geographically diffuse than in the past. We do need the Convention to address the Russian stockpile, but also, perhaps more importantly, as a critical tool to eliminate other chemical weapons arsenals and prevent further chemical weapons proliferation.

Approximately 25 nations are now suspected of either possessing chemical weapons or having the ability to produce them. Among them are Iran, Iraq, and Libya, countries not known for their restraint. Unlike the nuclear threshold, the chemical threshold has proved all too easy to cross. Nuclear weapons have been used but once, to end the Pacific war. However, nations repeatedly have unleashed chemical weapons to achieve military or political ends.

In that context, it is important that three-quarters of those 25 countries identified as having a chemical weapons potential have signed the CWC. We want them, obviously, to ratify it as well, and ultimately to attain universal adherence.

Mr. Chairman, the CWC establishes an unprecedented global norm against chemical weapons. As the President has emphasized, it bans an entire class of weapons of mass destruction. It prohibits not only any use of these heinous weapons, but also virtually every other chemical weapon related activity. It requires the total destruction of chemical weapons and production facilities. It forbids any military preparations to use chemical weapons. It is the first arms control treaty with significant implications for the private sector, and for this reason, the chemical industry has been closely consulted and involved at every stage of the negotiations. Of course, it is the first arms control treaty that penalizes countries that do not join, creating added incentives to become a party.

The Convention contains an unprecedented verification regime. It is the first multilateral treaty to require intrusive, short-notice challenge inspections of declared and undeclared sites.

While no treaty is 100 percent verifiable, the CWC will increase the risk of detection and therefore help deter illicit chemical weapons activities. Its declaration and inspection provisions will help

build a web of deterrence, detection, and possible sanctions that reduces the incentives for states to build chemical weapons.

If a country does not meet its CWC obligations, it could face serious penalties. In cases of serious violations, the CWC organization can recommend the imposition of collective sanction. In cases of particular gravity, it must bring the matter to the attention of the U.N. General Assembly and the Security Council. Finally, of course, individuals and corporations are also subject to the prohibitions of the Convention and can be prosecuted in national courts.

Mr. Chairman, let me anticipate a question. Why should we ratify the CWC and give up our chemical weapons when we cannot be sure that states we are most concerned about will also join? Well, first, we have already decided to eliminate the major portion of our chemical arsenal, but the Convention imposes binding obligations on all parties to do what the United States has already begun to do.

Second, we are convinced that the answer to the use of chemical weapons must not be retaliation in kind, but rather a full range of defensive measures, coupled with a strong conventional deterrent.

Third, by establishing a global norm against chemical weapons, the Convention will give the United States and world community a more effective means of pressuring radical governments to abandon their CW capabilities.

Our own obligations under the Convention can be met safely and on time. The dangers of leakage and contamination from storing highly toxic chemical weapons outweigh any potential risk from destroying our CW stocks. The National Research Council rendered this judgment last month when it reported on the Army's baseline program to destroy our chemical weapons in high temperature incinerators. The NRC said that "delays in disposal operation can only increase the already cumulative risk of accidental release from storage and they can add to the risks of disposal as agents and munitions continue to deteriorate."

I would like to emphasize, Mr. Chairman, that this ratification effort is a strong example of bipartisanship and continuity. It was President Bush's deep personal commitment to the cause of banning chemical weapons that led the United States finally to conclude this treaty. President Clinton, in turn, has made the Convention a foreign policy priority of this administration. He stressed it in his State of the Union Address in January and also in his address to the U.N. last September.

The Convention also enjoys strong support from affected constituencies. The final text of the Convention reflected the views of the U.S. military, the intelligence community, the chemical industry, and the Congress, all of which have a compelling interest in the treaty, especially its verification provisions.

Mr. Chairman, by joining other countries to ban chemical weapons, we have directly confronted a major threat of the post-cold war period. The Convention will delegitimize chemical weapons by establishing a global norm prohibiting their development, production, acquisition, stockpiling, retention, transfer, and use. It will help inhibit the spread of chemical weapons by prohibiting parties from assisting others in acquiring them. It will help stop the future use of chemical weapons by providing for the possibility of sanctions

against users and providing assistance to victims. It will establish a basis in international law for dealing with CW programs that threaten global and regional security. Finally, it will deter the many countries that are capable of producing chemical weapons from proceeding down this dangerous path.

I urge the Senate to fully consider the Chemical Weapons Convention and swiftly give its advice and consent to ratification. Prompt Senate action will send an unmistakable message to other countries, friends and even adversaries, that the United States means business. You will demonstrate conclusively that the United States stands four-square behind this new global regime that demolishes once and for all the claimed legitimacy of chemical weapons and halts their further proliferation. Early ratification of the CWC will underscore U.S. leadership, establish a vital arms control precedent, and help secure a safer world for us all.

Thank you for your attention.

[The prepared statement of Mr. Holum follows:]

PREPARED STATEMENT OF MR. HOLUM

INTRODUCTION

Mr. Chairman, at the outset, I would like to thank you for scheduling this first ratification hearing on the Chemical Weapons Convention. Today's hearing demonstrates strong United States leadership in global arms control. Your efforts will surely encourage other countries to proceed on the road to ratification, permitting the Convention's entry into force early next year.

Stopping the proliferation of weapons of mass destruction is at the very top of President Clinton's foreign policy agenda. When I became director of ACDA, the President urged me to spare no effort to halt the serious threat that these weapons pose to our country and to world peace. The Chemical Weapons Convention is a critical element of our nonproliferation efforts. I appear before you today in support of the President's pledge to the American people: that his Administration will marshal all the necessary resources and efforts to combat the scourge of chemical and other weapons of mass destruction.

CWC AS A BREAKTHROUGH: HISTORICAL BACKGROUND

The Chemical Weapons Convention is an extraordinary arms-control achievement. As you know, chemical weapons have long been recognized as a profoundly inhumane and indiscriminate method of warfare. As long ago as 1925, the Geneva Protocol banned the *use* of chemical weapons in war. However, reservations turned the Protocol into a no-first-use treaty. The right to develop and maintain chemical arsenals remained intact—meaning that states could keep them on hand for ready use if they were so inclined.

Recognizing the obvious limits of the 1925 Protocol, the international community struggled, over a 25-year period, to negotiate a comprehensive chemical weapons convention. These negotiations have taken place in Geneva in the Conference on Disarmament. When the negotiations at last concluded in September 1992, the Conference had fashioned a treaty regime with the most comprehensive ban *ever* devised against a single type of weapon of mass destruction. The Bush Administration joined 129 other nations in signing the Chemical Weapons Convention on January 13, 1993, making it possible to close the door against not only *use* of chemical weapons but virtually every other activity associated with an offensive chemical weapons program.

The Arms Control and Disarmament Agency played the lead role in negotiating the Chemical Weapons Convention, championing it in the Conference on Disarmament's Ad Hoc Committee in Geneva and providing leadership in Washington. ACDA has also supplied leadership in the work of the Chemical Weapons Convention's Preparatory Commission in the Hague. Our Agency will continue its active role upon entry into force of the Convention, as the executive office of the U.S. National Authority which will oversee implementation of the CWC.

THE CHEMICAL WEAPONS THREAT

The members of the Committee are well aware of the dangers posed by chemical weapons. During negotiations on the Convention, we focused on the need to eliminate the Soviet chemical threat to the U.S. and NATO. Now, the Soviet Union is no more and the risk that Russia will use the chemical weapons it inherited from the Soviet Union against the U.S. and NATO has substantially diminished. But the worldwide threat has grown and chemical weapon threats today are far more diverse and geographically diffuse than in the past. We need the Convention to address the Russian stockpile but also, perhaps more importantly, as a critical tool to eliminate other chemical weapons arsenals and prevent further CW proliferation.

Approximately 25 nations are now suspected of either possessing chemical weapons or having the capability to produce them. Among them are Iraq and Libya—countries not known for their restraint. Chemical weapons have been termed the “poor man’s nuclear bomb” because they can be manufactured from chemicals that, although they are in many cases controlled, are nevertheless available for purchase. And now, the dangers from chemical weapons are aggravated by the production and potential proliferation of ballistic missiles that can hurl a CW warhead hundreds of miles. Moreover, unlike the nuclear threshold, the chemical weapons threshold has proved all too easy to cross.

In the twentieth century, nuclear weapons have been used but once, when they were employed to end the Pacific War. During this same time, however, nations repeatedly have unleashed chemical weapons to achieve their military or political goals. Our soldiers were gassed in World War I. Chemical weapons were used in Ethiopia in the 1930s, in Manchuria in the 1940s and in Yemen in the 1960s. During the Iran/Iraq war, chemical attacks became commonplace. Saddam Hussein dropped chemical bombs on the Kurds in order to suppress their rebellion in 1989. As recently as the Persian Gulf War, our own troops faced a potential chemical weapons threat from Iraq.

It is important that three-quarters of the 25 countries identified as having a chemical weapons potential have signed the CWC. We want them to ratify it as well, and ultimately to attain universal adherence.

KEY ELEMENTS OF THE CWC

Mr. Chairman, the CWC is both a disarmament and a nonproliferation Treaty. It establishes an unprecedented global norm against chemical weapons that, over time, will help eliminate this serious threat to our country and to world peace:

- As President Clinton has emphasized, the CWC bans an entire class of weapons of mass destruction. It prohibits not only *any use* of these heinous weapons, but also virtually *every other* chemical-weapon related activity. This includes their acquisition, development, production, stockpiling, retention, and transfer by a party from the day the Convention enters into force.
 - It requires the total destruction of chemical weapons and production facilities, except facilities the CWC international organization explicitly permits to be converted to peaceful purposes.
 - It forbids any military preparations to use chemical weapons.
 - It is the first arms-control treaty with significant implications for the private sector—and for this reason, the chemical industry has been closely consulted and involved at every stage of negotiations.
 - It is the first arms-control treaty that penalizes countries that do not join.
- Let me amplify on some of these elements of the Treaty:

VERIFICATION

The Convention contains an unprecedented verification regime, coupled with provisions for dealing with parties that do not comply with their obligations. The CWC is the first multilateral treaty to require intrusive, short-notice challenge inspections of declared and undeclared sites.

Through required declarations and routine inspections, information will be obtained about other countries’ chemical weapons capabilities and destruction activities. If, as a result of *this* information or *other* information obtained by national intelligence means, we suspect another country of illicit chemical weapons activities, we can initiate on-site *challenge inspections* under the treaty.

While no treaty is one hundred percent verifiable, the CWC will increase the risk of detection and therefore help deter illicit chemical weapons activities. Its declaration and inspection provisions will put us in a better position than we are now to identify and detect clandestine CW efforts. In the largest sense, we are building a

web of deterrence, detection and possible sanctions that reduces the incentives for states to build chemical weapons.

The Convention also requires other countries to destroy their chemical weapon stocks in a safe and environmentally-sound manner. We will be able to satisfy ourselves, during the destruction process, that other countries have met their environmental and safety obligations.

PROTECTION OF SENSITIVE AND CONFIDENTIAL INFORMATION

The CWC's verification regime strikes a reasonable balance between the need to verify compliance, on the one hand, and the need to protect sensitive government information and proprietary information, not related to chemical weapons. In particular, the Convention's provisions for challenge inspections allow parties to protect such information by managing access to sensitive or private facilities.

All inspections to verify compliance with the CWC will be carried out fully in accordance with the U.S. Constitution. The implementing legislation for the Convention will ensure that activities will be conducted without infringing upon constitutional protections.

TREATY SANCTIONS

If a country does not meet its CWC obligations, it could face serious penalties. Violating the Convention will carry with it a demonstrable political price. In cases of serious violations, the CWC organization can recommend the imposition of collective sanctions on a country engaging in illicit chemical weapons activities. In cases of particular gravity, it must bring the matter to the attention of the U.N. General Assembly and Security Council. Finally, individuals and corporations are also subject to the prohibitions of the Convention and can be prosecuted in national courts.

CONCERN ABOUT STATES THAT DO NOT JOIN THE CONVENTION

Mr. Chairman, let me anticipate a question: why should we ratify the CWC and give up our chemical weapons when we cannot be sure that states we are most concerned about will also join? The answer to that question has three parts. First, we have already decided to eliminate a large part of our chemical arsenal. Congress has directed the Defense Department to destroy our unitary chemical weapons stockpile and make plans to destroy all other chemical weapons material that is banned by the CWC. As we unilaterally dismantle our own chemical weapons, it makes sense to seek the destruction of other countries' chemical weapons as well. The Convention imposes binding obligations on *all* parties to do what the United States has already begun to do. So the Convention has great value even if a few radical states do not join at the outset.

Second, we are convinced that the answer to the use of chemical weapons must not be retaliation in kind, but rather a full range of defensive measures—such as filtering systems for tanks and lightweight anti-chemical weapons gear—coupled with a strong deterrent. The Persian Gulf War provided a convincing, real life demonstration that the U.S. military is highly capable of deterring or responding to a chemical weapons threat with superior conventional military force and strategy.

The U.S. Government has long recognized that we *do* have a need to maintain our defensive chemical weapons programs as well as a need to give assistance to countries that are threatened or attacked with chemical weapons. The CWC explicitly allows both these measures. Many countries view these provisions as a significant incentive to join the Convention. I can assure you that the U.S. has developed and will continue to develop defensive, protective measures that fully protect our military forces against all chemical weapon threats.

The third part of my answer to the question of why we should ratify the CWC, even if certain states do not join, is this: by establishing a global norm against chemical weapons, the Convention will give the U.S. and world community a more effective means of pressuring radical governments to abandon their CW capabilities. The CWC also contains specific provisions for penalizing countries that do not join. States remaining outside the Convention will be denied access to State Party trade in specified chemicals that are important not only to CW production but also to industrial development and growth. These states will soon be viewed as pariahs and subjected to international pressure to abide by the Convention's global norm banning CW. Over time, we would hope that states will realize the high political and economic costs of remaining an outlaw and seek to become members.

THE U.S. DEMIL PROGRAM

Our own obligations under the Convention can be met safely and on time. The dangers of leakage and contamination from storing highly-toxic chemical weapons

outweigh any potential risk from destroying our CW stocks. The National Research Council rendered this judgment last month when it reported on the Army's Baseline program to destroy our chemical weapons in high-temperature incinerators. The NRC said: "The baseline system has been demonstrated as a safe and effective disposal process for the stockpile.* * * Delays in disposal operation can only increase the already cumulative risk of accidental release from storage * * * and they can add to the risks of disposal as agents and munitions continue to deteriorate.* * * The Committee believes that the disposal program should proceed expeditiously."

Clearly, the Baseline program will eliminate a serious risk to the health of our people and the quality of our environment. Investing in near-term destruction of chemical weapons through the Baseline program therefore makes good environmental policy as well as arms control sense.

BIPARTISAN SUPPORT AND SUPPORT FROM KEY CONSTITUENCIES

I would like to emphasize, Mr. Chairman, that this ratification effort is a strong example of bipartisanship and continuity. It was President Bush's deep personal commitment to the cause of banning chemical weapons that led the United States finally to conclude this treaty, which the U.S. signed seven days before he left office. President Clinton has made the Convention a foreign policy priority of his Administration as well, stressing it in his address to the United Nations last September and in his State of the Union Address in January.

The Convention also enjoys strong support from affected constituencies. The final text of the Convention reflected the views of the U.S. military, the intelligence community, the chemical industry and the Congress—all of which have a compelling interest in the treaty and especially its verification provisions. Prior to signing the CWC, the U.S. Government conducted a thorough interagency review of the entire treaty, and decided that the balances it struck adequately protect U.S. interests. The Chemical Manufacturers Association has fully endorsed the Convention on behalf of its members and other trade associations have expressed their support. During the ratification hearings, you will be hearing from numerous witnesses from the U.S. Government and industry who strongly support the Convention.

CONCLUSION

I would like to conclude my testimony today where I began—with the threat to our nation's security and to world peace from chemical weapons. Mr. Chairman, by joining other countries to ban chemical weapons, we have directly confronted a major threat of the post-Cold War period. The Convention will go a long way to preventing radical states from acquiring and using chemical weapons against innocent people.

- The Convention will delegitimize chemical weapons by establishing a global norm prohibiting their development, production, acquisition, stockpiling, retention, transfer and use.
- It will help inhibit the spread of chemical weapons by prohibiting parties from assisting others in acquiring them.
- It will help stop the future use of chemical weapons by providing for the possibility of sanctions against users and providing for assistance to victims.
- It will establish a basis in international law for dealing with CW programs that threaten global and regional security.
- Finally, the CWC will deter the many countries that are *capable* of producing chemical weapons from proceeding down this dangerous path.

I urge the Senate to fully consider the Chemical Weapons Convention and swiftly give its advice and consent to ratification. Other nations now look to the Senate for a firm sign of America's commitment to the Convention and to its earliest entry into force. Prompt Senate action will send an unmistakable message to other countries, friends and even adversaries, that the United States means business. You will demonstrate conclusively that the U.S. stands four-square behind this new global regime that demolishes, once and for all, the claimed legitimacy of chemical weapons and halts their further proliferation. U.S. leadership in this matter will enhance the effectiveness of our other arms-control efforts—including a Comprehensive Test Ban Treaty and indefinite extension of the Nonproliferation Treaty.

In sum, early ratification of the CWC will *underscore* U.S. leadership, *establish* a vital arms control precedent, and help *secure* a safer world for us all. I thank you for your attention and I urge you to meet the President's challenge of early advice and consent so that the Convention can enter into force at the earliest possible date—January 1995.

The CHAIRMAN. Thank you very much, indeed, for your full statement. I realize that you did not read the whole statement. It will be inserted in the record as if read.

Mr. HOLUM. I appreciate that, Mr. Chairman.

The CHAIRMAN. How many countries have ratified the Convention so far?

Mr. HOLUM. At the moment there are 156 that have signed. Four have ratified. Others are queued up to move rather swiftly.

The CHAIRMAN. Which ones are the four that have ratified?

Mr. HOLUM. Sweden, Seychelles, Fiji, and Mauritius.

The CHAIRMAN. Which signatories do you see as particularly important joiners of the Convention from the viewpoint of having potential to develop chemical weapons?

Mr. HOLUM. Well, I mentioned Iran. I think the entire list of 25 or so that has been referenced in public testimony by Secretary Woolsey are important. However, I would also stress that in our view the important issue is to get the Convention into force quickly. The provisions of the Convention are that any 65 countries can bring it into force 6 months after the 65th country ratifies. I think entry into force is the best way to apply pressure to the problem states to get them to join the Convention.

The CHAIRMAN. What do you see as the particularly significant abstainers from signing the Convention?

Mr. HOLUM. I mentioned that of the 25, roughly three-quarters have already signed the Convention, but that group would clearly be the problem group that we would go after. I can provide that list to the committee.

The CHAIRMAN. Thank you.

From the viewpoint of the destruction of chemical weapons, which this treaty would eventually require—would it not?

Mr. HOLUM. Yes.

The CHAIRMAN. It would.

How complicated a process is that destruction? Can it be done chemically? Do you blow the weapons up into outer space? What do we do with them?

Mr. HOLUM. The baseline program that has been begun and demonstrated at Johnston Atoll and is now being developed at Tooele Army Depot is based on incineration. It involves disassembly of the four different major elements of the chemical weapons and then basically burning them up in very high temperature incinerators.

The CHAIRMAN. This is a little off the subject, but I am sort of interested in it. You say there are four elements in all chemical weapons?

Mr. HOLUM. Right. The most volatile and dangerous element obviously is the agent itself. In addition, there are explosive materials that are coupled with the agent in a weapon and also the metal parts, which is the third element, and then what is called dunnage, which is the packing material associated with it.

The CHAIRMAN. These are the physical containers that you are talking about, not the chemicals that make up—

Mr. HOLUM. That is right, but they would all have some degree of contamination and all have to be dealt with.

The CHAIRMAN. Do you believe that any of the really significant chemical weapons could be detected?

Mr. HOLUM. We are quite confident that the treaty is effectively verifiable. I have, in fact last night, signed the section 37 report under the Arms Control Act dealing with the verifiability of the Convention. That should be arriving here this morning.

The essential aspect of the verification problem is to recognize that whereas there may be individual events that would be difficult to detect, such as the development or production of a small quantity of a chemical agent, in order to have a useful arsenal, a number of additional steps are required, substantial production, filling weapons, storage, and so on. As additional activity occurs, the likelihood of detection increases.

In addition, the Convention itself creates a whole range of new tools for detecting these. Absent the Convention, basically all we have are national intelligence means. With the Convention in place, we will have, for example, the declarations, original and annual declarations, of all the participant states on such things as their precursor chemical shipments. Once you have that information, you can match it with the declarations of problem states and determine whether there are discrepancies, and that would give you a basis for issuing a challenge inspection or demanding an explanation. There is a web of additional verification capabilities.

The CHAIRMAN. At this point, without objection, I would insert in the record the verification report that ACDA has put out in this regard.

[The ACDA report, the GAO report, and the CRS report have been provided to the committee.]

Mr. HOLUM. Thank you, Mr. Chairman.

The CHAIRMAN. I would turn now to the ranking minority member, Senator Lugar.

Senator LUGAR. Thank you very much, Mr. Chairman.

Director Holum, as you point out in your testimony, this is the first arms control treaty with significant implications for the private sector, and you note that the chemical industry of this country has been closely consulted and involved in each stage of the negotiations. Let me follow up on that statement by noting that Senator Pell and I and other members of the committee as a part of the Senate Arms Control Observer Group have visited Geneva at various times during this long process you have described, and tried to gain some sense both from our negotiators, as well as from nationals of other countries who are interested in the verification process, how nation states will go about taking a look at private firms.

It goes without saying in our country this has been a source of conversation for a long time because there are proprietary interests in chemicals that are being produced, and frequently the allegation was made that in a very small part of a firm, the chemicals that are to be banned were involved, whereas the rest of the business is legitimate.

Furthermore, in some countries the nature of the facilities in which chemicals for purposes of destruction that might be produced were very small are amassed for other purposes, not chemicals, but perfume or other substances.

So, your point I think is an important one and perhaps in further hearings the verification situation will be spelled out. The chairman has mentioned the report we received from ACDA.

But as I understand the philosophy of this verification, it is, you say, individual events or sites are difficult to detect and there is confidence that an infrastructure or several steps are required for a potential for chemical warfare to be present, and our confidence in this sequence of steps or events is at the heart of the verification procedure. Is that a fair statement?

Mr. HOLUM. Absolutely, Senator. That is exactly right.

Senator LUGAR. Because it is the first time through in this and in previous arms control debates, at least on the Senate floor, the verification side of it understandably looms large, I am hopeful that perhaps ACDA or your office or others will be able to spell out in some detail almost in storybook form scenarios of how this is to be done. I think this is important not only for Senators, but for the American people to have some degree of confidence in this because for a long time many statesmen have not had much confidence in it. They have been coming up to the jump about to leap over and since it is crucial in terms of our ability to monitor others or even to understand how we might monitor others with confidence, why we all will want to go to school and to learn more.

But I simply thank you for your initial testimony in indicating a general idea of the philosophy of how this verification is to occur.

Now, this is backed up, as you say, by onsite challenge inspection. How many challenges could the United States make, say, to other countries if we had reliable information? Can we do this once a year, whenever we want to do so, and likewise coming the other way, how frequently could other nation states challenge us and thus come to our domestic, even privately owned facilities with these demands?

Mr. HOLUM. As I understand it—I will have to double check, but the control on challenge inspections is not the number, but the legitimacy of the concerns. For example, the Executive Council of the Organization for the Prevention of Chemical Weapons receives the request for a challenge inspection containing information that a member country must and might bring to it. On the basis of that the council could, based on the request or depending on the nature of the request, ask for an explanation and decide against the challenge inspection. Challenge inspections proceed based on managed access or various other provisions that are designed both to allow sufficient access to uncover the problem but to protect proprietary information.

Senator LUGAR. How is the council constituted?

Mr. HOLUM. There are 41 members. Members of the Council will be distributed on a geographic basis, the same way as the U.N. groupings are established. Members also depends on the importance of chemical industry within the geographic region. Those two, the regional and the importance of the industry, mean that it is very likely that the United States will have a permanent seat. We expect to have a permanent seat.

Senator LUGAR. But will we have more than one member?

Mr. HOLUM. No.

Senator LUGAR. But a permanent seat among the 41.

Mr. HOLUM. Right.

Senator LUGAR. Would the vote be by a majority vote as to whether to take seriously an allegation?

Mr. HOLUM. That is correct. Let me double check. I am sorry. It is a three-quarters vote not to conduct. So, if there is a challenge inspection request made, it would take three-quarters not to do it.

Senator LUGAR. Or stating it the other way, one-quarter—

Mr. HOLUM. One-quarter can do it.

Senator LUGAR [continuing]. To affirm that challenge.

Now, what confidence do we have that in countries that are authoritarian, with not a free press and others who are inquisitive about what is going on in a factory, that we are likely to get information that would lead to a challenge? In other words, how have the treaty-makers and negotiators faced the fact that openness is relative in the world?

Mr. HOLUM. Let me answer that two ways. The first way is that compared to our access to information now, the Convention will give us dramatically enhanced capabilities through our ability to have access to declared and undeclared sites of member countries. So, it is a dramatic increase over the kind of access we have to those countries now, coupled of course with the potential sanction if they are discovered.

In terms of our particular access, maybe I could walk through in very general terms what the process would likely be. We have some information now about a number of countries in terms of their capability. It varies from country to country and obviously it is not something I can testify about in open session. But there is a base of information or concern already in existence.

Now, under the Convention, assuming an authoritarian or a closed society joins, they have an obligation to make declarations at the beginning as to, for example, certain of their facilities that deal with scheduled chemicals. The Organization for Prevention of Chemical Weapons, its technical secretariat, has the opportunity to inspect those facilities on a routine basis. So, you have access independently of the government of the country.

Now, if you have additional concerns about sites that are not declared through national intelligence means, then you also have the opportunity to conduct challenge inspections of additional sites. So, you have a series of escalating opportunities to gain more information than we presently have.

Senator LUGAR. In the case that Secretary Christopher cited in the beginning of his testimony in North Korea, North Korea might choose on this occasion not to join the treaty, but might in fact be alleged to be producing chemical weapons. What are the sanctions that are available? In other words, why do we have confidence that we would be able to make any difference in the North Korean case?

Mr. HOLUM. An important sanction relates to the availability or access to chemicals. There would be no access to schedule 1 chemicals from any state party from the outset of the treaty. Schedule 2 chemicals, which are chemicals that have significant risk, but also a considerable commercial use, would not be available to that country from any state party after the third year, and up until that time, they would have to provide end-user declarations. It does cut off from the world community a significant source of supply of

chemicals that are of industrial utility. So, it would pinch to a substantial extent.

I think the more important aspect of the Convention, however, is the pressure that the world community would apply to join the Convention.

Senator LUGAR. Mr. Chairman, may I just follow up quickly by asking what if there are a significant number of countries who stay out of the treaty and who supply each other? We would levy sanctions against the whole group, but perhaps they within their bounds would have the ability to produce what they do.

Mr. HOLUM. That is conceivable although the countries of greatest concern tend to be less-developed countries who would rely on the developed world for the chemicals and the equipment, but it underscores the reason for keeping the Australia Group, for example, in place. But I also emphasize again that under the current situation, those chemicals can be freely traded. So, there is a net improvement in our ability to restrict access.

Senator LUGAR. Thank you. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much.

Senator Simon.

Senator SIMON. Thank you Mr. Chairman.

First I strongly support moving ahead on the treaty, and we could end up protecting ourselves in the process. We now have veterans—I have some in Illinois—who are experiencing something similar to the Agent Orange kind of problem and the causes apparently may be either the explosion of Iraqi munitions centers, which included some chemical weapons, or the second possibility is one of our own weapons which still remains classified and I do not think should be classified, but is classified. But clearly we can be beneficiaries.

But if I can follow through on Senator Lugar's questions. Let's just say North Korea or Libya. What is to prevent North Korea or Libya from—let's just say Switzerland. Somebody in Switzerland buys the chemicals and then sells them to North Korea or Libya. This is obviously the way a lot of countries have gotten around various sanctions in the past. How do we control that?

Mr. HOLUM. I am assuming that Switzerland in your example is a member of the Convention. Assuming that is the case, then Switzerland has to make an original and then annual subsequent declarations of its chemical facilities relating to precursor—

Senator SIMON. It is not the chemical weapons. It is the chemicals themselves. Right?

Mr. HOLUM. Right. Required declarations include relevant industrial chemicals, not just chemical weapons. Chemical weapons production facilities are all required to be dismantled and destroyed, but the producers of specified chemicals that, for example, might have a weapons utility would have to declare to the international body, the OPCW, their transfers. So, you have a means of detecting and tracking sales of the precursor or troublesome chemicals in the international community.

Senator SIMON. Now, what if Switzerland—and Switzerland is not a member of the U.N., does not join each of these treaties. Let us just say Switzerland does not join. What is the situation then?

Mr. HOLUM. Then we would not have that access. That is the reason why we think it is important to have early entry into force and start the process of getting countries engaged because we clearly do not have that access now. The basic point here is that it would improve our ability to detect those transfers.

Senator SIMON. Thank you. Thank you, Mr. Chairman.

The CHAIRMAN. Senator Pressler.

Senator PRESSLER. Let me ask a couple of questions, if I may, on the issue of North Korea. I know this is on chemical weapons, but I am informed that IAEA inspectors have discovered very substantial progress by the North Koreans since their visit last summer. I am further informed that as a result of those discoveries, the IAEA has been forced to revise its estimates of the North Korean nuclear program, particularly relating to timetables. Is that correct?

Mr. HOLUM. I do not have any information on that, Senator.

Senator PRESSLER. Last week the Wall Street Journal reported the Defense Intelligence Agency believes that Chinese arms companies are providing critical technical assistance to the North Korea long-range ballistic missile program. Do you agree with the DIA's assessment?

Mr. HOLUM. I will have to get back to you on that as well, Senator.

Senator PRESSLER. Fine. You do not have any feelings of your own on that.

Mr. HOLUM. I would have to base it on direct knowledge, and I do not have that on hand.

Senator PRESSLER. Now, the Organization for the Prohibition of Chemical Weapons will be funded through signatories' contributions. The formula for assessment is tied to the U.N. assessment procedure. Under this arrangement the United States will contribute approximately 25 percent of the operating budget. In addition, there will be costs of domestic implementation measures.

How will the U.S. contribution to the OPCW be budgeted and what percentage of the total contribution will the United States pay?

Mr. HOLUM. The U.S. contribution to the OPCW is as you described it. It may be slightly different from the U.N. formula because of differences in membership. It comes out to approximately 25 percent. That, as we currently are pursuing it, would be budgeted through the ACDA budget.

Senator PRESSLER. Do you think that is a fair share? Is that about right, or how do you feel about that?

Mr. HOLUM. I think, given our strong interest, Senator, in this regime and particularly since these funds support verification, essentially the verification regime, that that is a reasonable allocation and certainly in the U.S. interest.

Senator PRESSLER. I am told that since we have given the Russians the Nunn-Lugar money to destroy nuclear warheads, none have been destroyed. Is that correct?

Mr. HOLUM. I do not believe that is correct, Senator, but again I would have to do some further consultation.

Senator PRESSLER. Would you check into that for me? I am very interested in that.

Now, maybe you covered this in your opening statement. This involves the United States CW destruction program. As you know, we have been developing a chemical weapons destruction program for over a decade. Of the proposed eight destruction facilities, one is operational, but owing to public concerns over the selection of incineration as the means of destruction, Congress has mandated the Department of Defense review of alternative technologies. Some States in which destruction facilities are to be built have passed or are considering legislation that could impede or prohibit destruction facility construction. In addition, there is a possibility of private litigation being brought to enjoin current destruction plans.

Can these difficulties impede the U.S. ability to meet the CWC destruction timetable? What steps is the administration taking to ameliorate potential obstacles to the chemical weapons destruction program? And anything else on that subject that you have.

Mr. HOLUM. Yes. Public concerns, if they lead to legislation that would inhibit the process of the baseline program, could interfere with our ability to meet the deadline. The current estimate is that we can complete the baseline destruction program of chemical weapons stocks by April 2004, and the deadline will be in 2005, assuming ratification. I am sorry. It should have been April 2003. So, we have some cushion there, but it depends on the program's being funded and supported legislatively.

In terms of dealing with public concerns, that has been addressed I think in a very persuasive way in the recent National Research Council evaluation of the program, which underscored the point that we have a situation that is becoming more dangerous if we do not act because our stockpiles are deteriorating. The longer we delay, the greater the risk of harm to the environment and to people from the stockpiles just while they are in storage, plus the process of demilitarization of destruction of stockpiles will be more complicated because they will be in a deteriorated state.

So, the NRC has recommended that we proceed with the present program at the originally contemplated rate while also looking at alternative means of destruction. It has not ruled out the alternatives, but it said we should proceed without delay.

Senator PRESSLER. Now, I understand that the cost of the destruction program has increased by 270 percent in the estimations. It is now estimated at \$8.6 billion. This represents a 270 increase over the estimates that previously were estimated.

Do you anticipate the chemical weapons destruction program costs will continue to escalate as they have over the past several years, and what can we do about it?

Mr. HOLUM. I tend to think that perhaps they will not continue to escalate to the same extent, given that we are much further down the road in terms of knowing how to do it. We have a facility at Johnston Atoll that has been demonstrated, and we know the costs at that site. Also a second site has been constructed at Tooele Military Depot. So, we know a lot more now about what the process will be, which is likely to make the current cost estimates more reliable. Obviously, it is always a mistake to say the costs will not rise, but I think we have a much better handle on the figures.

I might also add that the \$8.6 billion figure is for the stockpile cost. There is another \$1 billion estimate for the cost of destroying the nonstockpile portion of the chemical weapons.

Senator PRESSLER. Now, a preeminent concern of the U.S. chemical industry is the potential loss of confidential information through the chemical weapons reporting requirements or onsite inspection. CWC negotiators have sought to allay this concern in a variety of ways.

For clarity's sake, would you detail for the committee the specific provisions of the Convention, actions of the preparatory commission, and efforts in the development of the national authority intended particularly to safeguard proprietary information? To what extent will the U.S. Government assume liability for the release of proprietary information?

Mr. HOLUM. I would be happy to do that, Senator. I will supply that for the record, but let me just answer in general terms.

There are some important protections built into the Convention. First, in the realm of preventing access to non-CWC-relevant proprietary information, on the two kinds of inspections that will be available, both contain safeguards. The routine inspections can be conducted according to facility agreements negotiated between the United States and the OPCW, and the facility agreements can be designed to prevent access to activities that are not of concern under the CWC. In the context of challenge inspections, the access is negotiated before the inspection takes place, and again the facility owner has the option of shielding and walling off areas of non-CWC-relevant proprietary concern.

So, on the one side, it would be very difficult for inspectors to get such useful proprietary information. On the other side, there also are very strong prohibitions, as you have indicated, against disclosure both in the U.S. legislation and in the Chemical Weapons Convention itself. There are prohibitions against unauthorized disclosure by OPCW and U.S. Government personnel.

Senator PRESSLER. As I understand it, tonight Dateline NBC will report Chinese intelligence agencies are conducting an unprecedented campaign of high tech spying against the United States. What do you know about that and what can we do about it?

Mr. HOLUM. I am not up to speed on that one either, Senator.

Senator PRESSLER. Fine. If you can find anything to submit for the record, I would much appreciate it.

Mr. HOLUM. That would be outside my realm of authority.

Senator PRESSLER. OK.

The CHAIRMAN. Senator Brown.

Senator BROWN. No questions.

The CHAIRMAN. I would like if the staff people who are here would ask their Senators to come in so that we can make a quorum because the meeting will be winding up, but I did have a couple of questions to ask.

Do you think it would be possible to develop a chemical weapon without detection?

Mr. HOLUM. Under the Convention or in the existing circumstance? I am assuming you are referring to if the Convention is in force.

The CHAIRMAN. Right.

Mr. HOLUM. I think it would be possible but difficult, and it would be increasingly difficult as the effort to build a militarily useful arsenal took place. As I had suggested earlier, you may be able to develop the chemical itself in small quantities, but as you take additional steps to make it a weapon, to build an arsenal, the likelihood of detection would increase. Of course, the country in which this occurs is subject to the challenge inspection provisions of the Convention. So, if there were any basis for belief, any intelligence that suggested that chemical weapons were being produced at an undeclared facility, the United States or any other member country could go to the technical secretariat, to the OPCW, and call for a challenge inspection.

The CHAIRMAN. Do you agree that the verification provisions of the Convention are as good as could be negotiated?

Mr. HOLUM. That is my understanding. I was not, as you know, a participant in the negotiations. They occurred under my predecessor, Ron Lehman. But these verification issues were carefully negotiated to balance two concerns that we have been discussing here this morning. One is the need to have effective verification to prevent violations, to deter and detect violations, penalize them, and at the same time to provide protections for the proprietary information of our industry.

The CHAIRMAN. Do you believe they should have been either more extensive or intrusive than they are because they seem to be a little light I thought?

Mr. HOLUM. If they were more intrusive, I think then we would get into problems with the protection of proprietary information and other protections for our own industry. So, what we had to do here was balance those two competing concerns.

I think it is a good balance because we have clearly protected industry. The industry in the United States that is most affected supports this Convention. They regard the verification problem, both in terms of costs and access to proprietary information, as manageable, and at the same time we have a regime that I believe is effectively verifiable in terms of detecting militarily significant violations in a timely way.

The CHAIRMAN. I wonder what you would consider to be the national security benefits or fallout from the viewpoint of the United States from this treaty.

Mr. HOLUM. I think it is very strong in terms of both protecting our allies and friends and innocent people around the world from the danger that chemical weapons will be and also protection of our own forces. Obviously, the greater the international adherence to the treaty is, particularly by problem countries, the more that protection will be. But on balance, I think it is strongly in U.S. national security interests, particularly when you consider the fact that this is something we are doing anyway. We are basically dismantling our chemical weapons stockpile on the basis of a decision going back to 1971 in the Nixon administration and then based on the experience of the Persian Gulf war that the answer to chemical weapons is not chemical weapons. It is chemical weapons defenses and a strong conventional superior force.

The CHAIRMAN. Are there any more questions? Senator Helms.

Senator HELMS. Of course, all of us are thinking about North Korea. Does North Korea have the capability or do you believe it to be working on the capability for chemical warfare? I know they have two missiles in the works.

Mr. HOLUM. Senator, those are questions I would have to answer in a closed session. I will provide that information for you.

Senator HELMS. Well, I can understand that.

Mr. Chairman, I think we ought to have a few minutes of a closed session if not today, sometime in the near future because I am not going to say why, but I just asked a question about North Korea and chemical warfare.

The CHAIRMAN. Would you like to do it right now?

Senator HELMS. Sure. I already know the answer.

The CHAIRMAN. I am told we have to have a cleared room.

Senator HELMS. Well, how about clearing that room right there?

Mr. ASHWORTH. Senator, the problem would be you could adjourn to S-407 if they had space, but this room has not been swept or anything like that. That would be the problem. We can certainly schedule it as soon as that can happen.

Senator HELMS. It appears that we are going to have to have a vote after the first Senate vote in S-116. Make sure that room is cleared. Will you do that?

Mr. ASHWORTH. Surely.

Mr. HOLUM. I will be happy to either stay or come back.

Senator HELMS. I already have some written questions that I would not even bring up in open session, but you will get those.

The CHAIRMAN. What I would like to do—we have wrapped up this hearing I think—is give it about 10 minutes and if we have not got a quorum in 10 minutes, we will meet after the first vote about 2:30 this afternoon. So, the committee is recessed for 10 minutes and if at 11:05 a.m., we do not have at least seven bodies to go into executive session, we will meet again this afternoon.

Senator HELMS. Mr. Chairman, before you recess, let me suggest we amplify just a moment, at least for our side. I am hopeful that we can get seven Senators here, which is a working quorum.

The CHAIRMAN. Right.

Senator HELMS. If we can do that, then we can have any debate that proves to be necessary, and then all we will have to do after the first vote in the Senate is come in and vote, at which time of course we will have to have a quorum present.

The CHAIRMAN. I understand there are three Senators in the back room, so we can do a working quorum now. OK?

Senator HELMS. Well, let's do that, yes.

[Whereupon, at 11:02 a.m., the committee was recessed, to reconvene later this same day in closed session and to reconvene at 10:20 a.m., April 13, 1994.]



CHEMICAL WEAPONS CONVENTION (TREATY DOC. 103-21)

WEDNESDAY, APRIL 13, 1994

UNITED STATES SENATE,
COMMITTEE ON FOREIGN RELATIONS,
Washington, DC.

The committee met at 10:20 a.m., in room SD-419, Dirksen Senate Office Building, Hon. Claiborne Pell (chairman of the committee) presiding.

Present: Senator Pell.

The CHAIRMAN. The Committee on Foreign Relations will come to order. I must apologize to the witnesses and our guests. We had a rollcall vote on the Senate floor which came up unexpectedly.

The witness today at this second hearing by our committee on the Chemical Weapons Convention is Ambassador Ledogar, our Ambassador to the Conference on Disarmament in Geneva and the chief negotiator of the Chemical Weapons Convention.

I want to point out here that the Arms Control and Disarmament Agency has had the lead role in the negotiation of this Convention and will be in charge of assuring its successful implementation should the Senate give its consent. Two of the people who have been deeply involved in the successful effort to bring the Convention to this point are with Ambassador Ledogar today. They include Ms. Sherry Mannix who has been in charge of the back-stopping effort here in Washington and Mr. Bernard Seward, Jr., who has been the ACDA attorney responsible for the legal work entailed in this Convention.

Last month the committee held its first hearing on it with Secretary of State Christopher and the Director of ACDA, John Holum. The executive branch would like very much to have the Senate's approval at an early date so that we can ratify the Convention in July. If 64 other nations were to join us, the Convention would then enter into force as early as next January 13. We intend to proceed expeditiously but to allow time for any concerns that might arise in the course of the committee's inquiry and should be addressed.

At the committee's next hearing on this Convention, which will occur on April 26, representatives of the Secretary of Defense and the Joint Chiefs will discuss a number of matters of interest to our committee and to the public, including whether they are unanimous in their view that the Convention is in the national security interests of the United States; whether it is consistent with U.S. capabilities with regard to chemical weapons destruction; and

whether our Defense Department officials, military leaders, and the like anticipate any difficulties in implementation of this treaty.

Ambassador Ledogar currently is involved in efforts of the Conference on Disarmament to negotiate a comprehensive ban on nuclear testing. This is a vital matter and we plan to explore the present state of that effort in the course of the hearing today.

We are ready to hear your views. Will you proceed, Ambassador Ledogar?

STATEMENT OF HON. STEPHEN J. LEDOGAR, U.S. REPRESENTATIVE TO THE CONFERENCE ON DISARMAMENT, U.S. DEPARTMENT OF STATE; ACCOMPANIED BY SHERRY STETSON MANNIX, CHAIRMAN, INTERAGENCY CHEMICAL WEAPONS RATIFICATION TASK FORCE AND FORMER SENIOR ACDA REPRESENTATIVE TO THE U.S. DELEGATION TO THE CONFERENCE ON DISARMAMENT; AND BERNARD L. SEWARD, JR., ATTORNEY ADVISER, U.S. ARMS CONTROL AND DISARMAMENT AGENCY AND FORMER LEGAL ADVISOR TO THE U.S. CONFERENCE ON DISARMAMENT

Ambassador LEDOGAR. Thank you, Mr. Chairman. I am pleased to appear before the Senate Foreign Relations Committee today as the Government official who led the U.S. effort in pursuit of the Chemical Weapons Convention during the final 3 years of its negotiation in the Conference on Disarmament in Geneva.

I have also submitted a longer statement for the record. In this opening statement, I will concentrate on describing U.S. objectives during the negotiations and how the Convention we ultimately concluded meets those objectives. I will also touch upon the very relevant multilateral character of the Convention and the important role the United States played and continues to play in the achievement of this treaty. Finally, I will try to give you a sense of the players involved in the negotiations.

First, I would make a few more general remarks about the accomplishments of this Convention. A few weeks ago, the Director of the Arms Control and Disarmament Agency testified before this committee that the CWC is a critical element of President Clinton's nonproliferation effort. Mr. Holum further stated that it is an extraordinary achievement setting an unprecedented norm against chemical weapons far surpassing the very limited character of the 1925 Geneva protocol.

Indeed, the objective of a comprehensive worldwide ban on chemical weapons has been a priority objective of the Reagan, Bush, and Clinton administrations. Throughout these administrations, support for this objective has been truly bipartisan.

As U.S. Representative to the Conference on Disarmament, I personally was directly involved in the negotiations from January 1990 to January 1993, including during the last and critical final months of the negotiations, the shepherding of the final text through the U.N. General Assembly, and the treaty signing ceremony in Paris which involved 130 states.

Since the opening of the Chemical Weapons Convention Preparatory Commission in the Hague and the transfer there of most Chemical Weapons Convention activity, I have been much less directly involved.

Recognizing the need for dealing immediately with CW proliferation while working toward a comprehensive ban, the United States had and continues to have dual track policies to stem proliferation on the one hand while working to disarm existing CW programs on the other. The Convention we have negotiated also recognizes the need to deal with the immediate problem of proliferation, especially with regard to potential holdout states, while at the same time requiring CW disarmament. Thus, it is both a disarmament and a nonproliferation treaty. I will address this in more detail later.

During your consideration of the Chemical Weapons Convention, I would urge you to keep in mind a very salient feature of the CWC often overlooked by those with experience mostly in bilateral arms control negotiations. It is that the Convention is truly a multilateral treaty among equals. It was negotiated by 39 countries with participation by an additional 35 observer countries. This was not an arrangement worked out by two superpowers. All states agreed to undertake the requirements of the Convention on an equal basis. Thus, the give and take of the negotiations had to accommodate multipolar requirements, and balances had to be struck in the Convention to meet the many and diverse interests, including our own.

That said, I would note that before the United States signed the Convention, the interagency process conducted a very thorough scrub of the entire text and determined that the balances struck adequately protect and serve our national interests.

Another point. While the Convention was negotiated multilaterally, many of the key provisions dealing with chemical weapons and CW production facilities were developed bilaterally by the Soviet Union and later the Russian federation, together with the United States, and introduced into the multilateral negotiations. Our bilateral discussions during the course of the multilateral negotiations on these and other issues of mutual concern greatly facilitated the multilateral work.

Finally, I would emphasize the leadership role played by the United States throughout the negotiations. We gave birth to the framework of the CWC when then-Vice President Bush tabled a comprehensive draft in 1984 which became the basis for negotiation. We nurtured its growth throughout the negotiations with numerous substantive proposals and papers. We jolted the negotiations out of lethargy in May 1991 with major U.S. moves and a challenge to sprint to the finish line. We brought the Convention to adulthood with our leadership and example, helping to shepherd it through the U.N. and onward to signature in Paris, politically endorsing and signing it.

Now the United States still has both the responsibility and the ability to bring this endeavor to full maturity. The CWC's entry into force and implementation at the earliest possible date lies in our hand as the international community is looking to us to lead the way toward ratification. In this regard, I appeal to you to help us bring to timely fruition that for which we have been striving for so many years in the multilateral negotiations.

The fate of this multilateral Convention will have a great effect on the future of other multilateral work, notably the comprehensive Nuclear Test Ban Treaty negotiations, in which I am now involved. The CWC will have an impact in terms of the experience and pro-

cedures developed during these negotiations being most useful in pursuit of the CTBT. Most importantly, the demonstration by the U.S. Senate of full support for the truly multilateral arms control document before us today will greatly encourage efforts toward the CTBT and future global arms control regimes.

The major goal of our negotiation on the Convention was to improve U.S. and allied security and enhance regional and global stability. Thus, we sought to eliminate an entire class of weapons of mass destruction and to deter various states from ever producing or acquiring the chemical weapons capability. The comprehensive scope of obligations set forth in article I of the Convention totally bans chemical weapons and all conceivable relevant activities. These obligations were multilaterally acceptable because they not only enhance the security of all states parties but because they are also absolutely nondiscriminatory. Each state must meet them on an equal basis.

The Convention further provides for national security through provisions allowing for the maintenance of defensive programs with the provision of assistance and protection in the event of the use or threat of use of chemical weapons against states parties.

We initially sought the Convention to eliminate the massive Soviet chemical weapons program. Now that the Soviet Union has passed into history, we need the Convention to address the Russian program, but even more importantly to eliminate the chemical weapons arsenals of other states and to prevent further proliferation.

In this regard, the Convention is both a disarmament and a non-proliferation treaty. It not only requires states parties to destroy their chemical weapons programs, but it also prohibits them from transferring chemical weapons to other countries or assisting anyone in activity prohibited under the Convention.

It also obligates states parties to ban trade in many specified chemicals with countries remaining outside the Convention as well as to require end-use certification in other cases.

The United States encouraged as many countries as possible to participate in the chemical weapons negotiations believing that broad participation would enhance the prospects for worldwide adherence. The large number of countries involved either as CD members, CD participating observers, or U.N. General Assembly treaty endorsers helped to ensure the Convention satisfied the widest possible spectrum of security concerns, and thus the possibility for very wide adherence was improved. As of today, 157 countries have signed the Convention. Perhaps more significantly, more than three-quarters of the countries we believe to possess or to be capable of producing chemical weapons are among those signatories.

The Convention contains incentives for joining as well as disincentives for not joining. Incentives for joining include the increased security benefits. Upon the initiative of the United States, provisions restricting state party trade of listed chemicals with nonparties were added, creating a disincentive for those remaining outside the Convention. Over time, nonparticipating states will increasingly be denied trade in specified chemicals important not

only to chemical weapons production but also to the development and growth of their chemical industry.

A word on verification balances. The United States strove to ensure that an appropriate balance was struck among the need to protect sensitive nonchemical weapons related information, the privacy protections guaranteed in the U.S. Constitution, and the need for intrusiveness in the application of verification provisions. Thus, the challenge inspection regime provides for the maximum short-notice intrusiveness consistent with protection of our other national interests.

For example, the Convention enables states parties to manage access to challenged sensitive and private facilities to protect national security concerns and to take into account constitutional protections. These protective measures in turn are balanced with the obligation under the Convention for a state party to take other steps to satisfy compliance concerns by other means in the event it decides it must restrict access to a challenged site.

Many countries supported a stronger multilateral role in resolving compliance concerns. The United States desired a more balanced role protecting our ability to launch an inspection without delay and to draw our own conclusions about compliance. The verification provisions balance these multilateral and bilateral interests. A suspicion of a state party will be transformed from a bilateral concern, that is, the challenge inspection request, into a multilateral action by the Convention's international bodies, inspection by an international team, and involvement of the CW political bodies before, during, and after the inspection to address concerns about abuse or continuing concerns about compliance. CWC international bodies are not required to take decisions on compliance, thus not undercutting the ability of the individual states to draw their own individual conclusion.

To protect the interests of the chemical industry, the verification provisions balance the requirements for transparency through declarations and inspections with procedures for the protection of sensitive proprietary information during inspection and for the handling of such information by the Chemical Weapons Convention international organization. In this regard, the confidentiality annex was added to the Convention detailing such procedures, providing measures to address concerns about breaches of confidentiality.

During the negotiations, the United States also sought to ensure that provisions of the Convention would not infringe upon national sovereignty, especially in the area of trade. A number of developing countries sought through the text of the treaty to lift export controls among all states parties, to disband the Australia Group CBW nonproliferation regime which they perceived as being discriminatory, and they also sought to provide for aid for economic and technological development. These countries saw such provisions as not only a quid for their agreement to forego chemical weapons programs, but also as a necessary balance against the Western-desired regime of industry verification obligations which was broader in scope than that desired by such countries.

To balance these interests, the Convention requires states parties to undertake to facilitate trade relating to development in the field

of chemistry and not to maintain restrictions incompatible with the obligations in the Convention on such trade among themselves.

In addition, the Australia Group inserted for the record a statement that the members of the group would "undertake to review, in light of the implementation of the Convention, the measures that they take to prevent the spread of chemical substances and equipment for purposes contrary to the objectives of the Convention with the aim of removing such measures for the benefit of states parties to the Convention who are acting in full compliance with their obligations under the Convention."

These balances *inter alia* addressed all concerns while allowing for state party flexibility in the application of export controls and the continuation of the work of the Australia Group.

Two other areas of concern to the United States, the need for state party flexibility in the application of sanctions and provision of assistance, also required very careful crafting and balancing. The final result was provisions for recommendation of coordinated sanctions by states parties against violators. With regard to assistance to states parties facing the use or threat of use of chemical weapons, the Convention provides a great deal of latitude and flexibility for states parties in determining what assistance they might provide.

All countries had national interests to protect in the composition of the Executive Council, and this was one of the thorniest issues during the negotiations. It was recognized that the majority of countries in the council would have to come from the developing world, as they represented the overall majority of countries. At the same time, the interests of the industrialized world had to be adequately represented. Thus, the Convention provides for a 41-member council representing 5 geographic regions, with rotating seats within each region.

At the same time, the Convention provides for the interests of the minority of industrialized countries by requiring a specified number of "industrial seats" within each region. This criterion, along with a Western group political agreement, essentially assures the United States a permanent seat on the Executive Council.

The United States also sought to ensure that U.S. chemical weapons defensive programs could be maintained under the Convention, while at the same time providing for openness and international monitoring with regard to such programs. Largely due to U.S. efforts, the Convention contains provisions allowing for such programs within specified parameters of operation and subject to stringent verification procedures.

Throughout the negotiations, the United States sought a cost-effective Convention, one that would provide effective verification and an efficient organization with the lowest amount of cost. The United States also sought to ensure that the provisions of the Convention would not place an undue burden on the United States or other Western countries. These U.S. and Western concerns had to be balanced against developing countries' concerns about their ability to pay for the costs of verification, especially for verification of destruction of chemical weapons and production facilities and the impact on their chemical industry. The tendency for developing a large bureaucracy also had to be countered as well.

Thus, after much negotiation and compromise among all participants, the Convention contains provisions with regard to costs which, in the words of the Chairman of the Ad Hoc Committee on Chemical Weapons, are equitable to all interests and make every country equally unhappy. Some examples of these cost-related provisions follow.

The formula for cost sharing is based on the U.N. formula adjusted to take into account the membership of the Convention. With this formula, the cost burden will be shared with other major U.N. contributors and the U.S. share will be approximately 25 percent.

The costs for verification of destruction of states parties' chemical weapons and production facilities will be paid for by the possessing parties. Quotas have been placed on routine inspections of chemical industries to preclude a heavier inspection regime for developed countries.

The Executive Council is responsible for considering and submitting the program and budget of the organization, and conferences are to be held every 5 years to review the operation of the Convention.

I would also note that in the Preparatory Commission, the head of administration and a key position on the Verification Bureau have been filled by U.S. citizens who are aware of the need to manage costs without compromising verification needs.

Finally, I said I would address the key players in the negotiations. Given the broad and unprecedented scope of the Convention, the United States recognized the need to involve and keep informed constituencies that would be affected by the provisions of the Convention. U.S. agencies have been widely represented on the U.S. delegation to the CWC negotiations held under the auspices of the Conference on Disarmament. The U.S. negotiating team played a major role in the development of treaty provisions by presenting detailed papers and, in cooperation with the Soviet Union and later the Russian federation, bilaterally agreed provisions dealing with chemical weapons and their production facilities.

In Washington all relevant agencies were also widely represented in the development of U.S. negotiating positions and guidance to the U.S. delegation.

The United States is now participating actively in the Preparatory Commission meeting in the Hague, again playing a major role in setting up the program of work and presenting detailed papers outlining proposed implementing procedures.

The Congress during the last few years has provided oversight for the CWC negotiations through visits of Senate and House arms control observers to Geneva and consultations with the negotiators and receipt of regular ACDA reports on negotiating issues and progress.

The chemical industry, primarily the Chemical Manufacturers Association and to some extent the Pharmaceutical Manufacturers Association, has been actively involved in the negotiating process through consultations with the U.S. negotiators on provisions affecting the chemical industry, participation in international industry meetings with the Geneva CW negotiators, and hosting national trial inspections at chemical and pharmaceutical facilities.

In preparation for U.S. Government implementation of the CWC, the Government has recently conducted regional educational seminars for U.S. industry and is contacting companies individually and through relevant trade associations to familiarize them with the CWC provisions and their rights and obligations under the Convention. As I am sure you know, major chemical industry trade associations have concluded that the Convention does not pose an undue burden on them and they therefore support the Convention.

Mr. Chairman, in conclusion, I believe that given our goals and objectives and the necessary balances that had to be struck to ensure that the interests of all the negotiating countries were met, the Convention is just about right. Nothing, of course, is perfect. The negotiators recognized this, along with the need for the Convention to be a living, breathing document that could be improved over time without endangering its basic provisions. In this regard, the Convention provides simplified procedures for making technical and administrative changes, based on future technological developments and practical experience, that do not constitute amendments to the fundamental elements of the Convention. The key provisions of the Convention are, however, protected by a stringent amendment process.

I mentioned at the outset the priority the United States has placed on achieving a comprehensive ban on chemical weapons and the important role played by the United States in getting the Chemical Weapons Convention to where it is today. However, the last and most critical step is before us, bringing the Convention into force. The Bush administration negotiated and signed the treaty. The Clinton administration is pushing hard for its early ratification and earliest possible entry into force. We must continue to assert our international leadership and move quickly to ratify this Convention. If the U.S. Senate delays or fails to provide its advice and consent, it will delay implementation or, worse, possibly preclude the Convention from entering into force. I appeal to you to help us continue our longstanding role of being in the forefront of the effort to ban chemical weapons worldwide by providing your consent to ratification in time for the Convention to enter into force at the earliest possible date.

Thank you, Mr. Chairman.

[The prepared statement of Ambassador Ledogar follows:]

PREPARED STATEMENT OF AMBASSADOR LEDOGAR

REVIEW OF NEGOTIATIONS IN THE CONFERENCE ON DISARMAMENT

A number of unsuccessful attempts were made during the 1970s in the predecessor body of the Conference on Disarmament (CD), the Conference of the Committee on Disarmament (CCD), in Geneva to negotiate a chemical weapons convention. However, the draft proposals were lacking in substantive provisions, especially dealing with verification, and few countries pressed for active consideration of any proposal. Most countries believed that the United States and the USSR (which together possessed most of the world's chemical weapons (CW), although the USSR then denied possessing any) should prepare the terms of an agreement, as they had in other aspects of arms control. U.S.-Soviet bilateral negotiations began in Geneva in 1976 and continued off and on until 1980. The bilateral talks were independent of the CCD, which was briefed after each bilateral session. The main point of contention was Soviet opposition to intrusive verification, and the bilateral discussions slowed, finally halting in 1980. At the same time, other members of the CCD were seeking a larger role in chemical weapons negotiations.

These circumstances led the CD to establish an ad hoc working group on chemical weapons on March 17, 1980. The initial role of this group was to define issues for negotiation, but within a few years it began to draft the basic elements of a treaty. Some progress was made, but it was the initiative of the U.S. which picked up the pace and established the basis for negotiations.

On February 4, 1983, Vice President Bush addressed the CD, emphasizing the threat posed by chemical weapons. He highlighted the importance of achieving a complete and verifiable ban and introduced a paper outlining U.S. views on the contents of a chemical weapons ban. In June, the U.S. put forward a proposal for verification of CW stockpile destruction, and in November, the Arms Control and Disarmament Agency sponsored a CW stockpile destruction workshop at Tooele Army Depot in Utah, which was attended by representatives of 25 CD member and observer nations.

At a news conference on April 4, 1984, President Reagan announced that the U.S. would soon propose a bold initiative for a comprehensive worldwide ban on chemical weapons. On April 18, Vice President Bush tabled a draft chemical weapons convention in Geneva. Built on earlier U.S. concepts, it was the most comprehensive CW proposal ever presented to the CD. Declarations of CW stockpiles and production facilities were to be monitored by international inspectors and on-site instruments. Facilities producing chemicals that had legitimate industrial use but posed high risk of diversion to weapons application would also be subject to periodic inspection. The limited permitted production of chemicals covered by the treaty would be checked by systematic on-site inspection and exchange of data. The most unique aspect of the U.S. draft, however, was a mandatory challenge inspection regime, described by Bush as an "unprecedented open invitation verification proposal." The challenge inspection provisions soon came to be referred to as "anywhere, anytime, no right of refusal"; however, it should be pointed out that while any government or military facility would have been obliged to provide access, the provisions would have allowed for alternatives to access of private facilities.

Although the USSR and other countries were not prepared to accept the challenge inspection provisions, the U.S. draft served as the basis for negotiations in the CD for the next eight years. Much of the basic framework and thrust of the U.S. draft text are reflected in the Chemical Weapons Convention concluded by the CD in September 1992.

During 1984-85, the CD made little progress despite extensive discussions and introduction of many technical papers by the U.S. and other Western countries. In 1985, the CD adopted a U.S. proposed approach that led to a single negotiating text, preserving areas of agreement from one session to the next, while reflecting alternative proposals in areas where agreement was lacking. This text came to be known as the "rolling text" and was included in the annual reports to the CD by the CD's chemical weapons negotiating committee, the Ad Hoc Committee on Chemical Weapons (CWAHC).

In the meantime, the U.S. and USSR resumed bilateral CW discussions in 1984. These discussions, conducted parallel to the multilateral negotiations, provided basic components of the treaty provisions on declaration, verification and destruction of chemical weapons and CW production facilities.

The pace of work did not pick up until 1987, when the USSR admitted that it possessed chemical weapons and accepted the principle of immediate mandatory challenge inspection, although this was qualified by reference to the British proposal allowing for alternative measures to mandatory inspection. While these events were perceived as moving the treaty closer to conclusion, agreement on a challenge inspection regime was still lacking and many other difficult issues, e.g., monitoring chemical industry and the structure and operation of the international organization, still remained unresolved.

Work continued during 1988-90 to further elaborate the rolling text and resolve issues. Beginning in 1988, many CD members undertook to conduct national trial inspections (NTIs) at chemical production facilities to evaluate the feasibility of suggested verification procedures. During the negotiations, the U.S. held six routine and challenge NTIs at civilian industry and government facilities. The results of these inspections were shared with the CD and helped develop realistic inspection provisions based on actual experience.

Chemical industry representatives from several countries participated in the work of the CD, conducting industry seminars in Geneva to discuss areas of concern and to share expertise with negotiators. Their participation further contributed to the development of realistic provisions and was largely responsible for the industry's support today for the Convention.

A critical issue addressed by the CD during this period was how to ensure that all CW-capable states become parties to the CWC. This concern was raised against

the background of the proliferation and use of chemical weapons during the 1980s. In September 1989, President Bush announced to the UNGA that the United States was prepared to destroy more than 98 percent of its existing stocks within eight years after entry into force of the CWC if the USSR was also a party; further, the U.S. would destroy the remaining two percent within the following two years if all CW-capable states became parties to the convention. The Soviets agreed with this; however, other negotiating countries roundly criticized the proposal. CD delegations had been unable to agree on what countries were "CW capable" and the U.S. was unwilling publicly to identify specific countries of concern. More importantly, many countries criticized the U.S. for seeking a discriminatory regime in which the "haves" could keep their CW while the "have nots" would be prohibited from acquiring such a capability. The U.S. was perceived as not being serious with regard to its stated commitment to a total CW ban.

Recognizing this perception, President Bush, in May 1991, challenged the international community to conclude the CWC by mid-1992 and stated that the U.S. would destroy its entire stockpile ten years after the CWC entered into force and renounce the right of retaliation from the time that the CWC entered into force for it. This announcement was recognized as an important signal that the U.S. was now ready to conclude the CWC. During the 1980s, many countries, particularly the U.S., had resisted establishing a deadline for concluding the chemical weapons negotiations. The U.S. had believed that the pressure to conclude the convention by a specified time frame would undercut the effort to develop the detailed provisions necessary to effectively implement a CW ban.

The Persian Gulf War underscored to the world the urgent need for concluding the chemical weapons convention. However, at the outset of 1992, the rolling text reflected the hard issues deferred from previous years in brackets and footnotes and the negotiations seemed at an impasse. Finally, Australia broke the stalemate with a revised draft proposing compromises in the unresolved areas. The Australian draft stimulated discussion of new approaches and in late spring the chairman of the CWAHC prepared a new "chairman's" draft, based on the rolling text, the Australian draft and the results of the initial 1992 discussions.

During the spring and summer of 1992, discussions focussed on key issues, with a final revised draft being sent back to capitals for approval prior to the end of the negotiations. At last, although a number of countries still registered difficulties with the text, the CWAHC and the CD, in a spirit of compromise, endorsed the text and approved forwarding it to the UN for approval. The CD report containing the text reflected the views of a number of countries at the end of the negotiations on the final provisions of the convention.

The U.S. concluding statement expressed the U.S. view that, as previously stated, the United States considered that, on balance, the draft Chemical Weapons Convention was acceptable. It noted a number of complaints by delegations that the draft text still did not contain their preferred positions and said that the text also did not contain some preferred positions of the United States; nonetheless, the U.S. was prepared to go ahead and sign the text.

FINAL NEGOTIATIONS—BALANCE ACHIEVED

The CWC was negotiated by the 39 member countries of the CD with the active participation of many of the approximately 37 observer countries. This broad participation, while enhancing the prospects for worldwide adherence to the Convention, complicated the negotiations. The process of negotiations involved bilateral consultations among individual members, between members and CWAHC working group chairmen, within and between political groups, etc. The issues cut across national sovereignty concerns, developed versus developing country concerns, and bilateral versus multilateral concerns. The final stage of negotiations to resolve the remaining key issues required a very carefully crafted, complex package of compromises attempting to balance the substantive solutions in such a way as to ensure that all participants perceived the package as equitable to all interests.

When presenting the draft Convention to the CD, the CWAHC chairman emphasized that it "had to be looked upon as a whole and that only by doing so could the overall balance of rights and obligations, of benefits and costs be evaluated and appreciated." In this regard, he highlighted a number of areas illustrating the overall balance of the draft Convention. Of note are the following:

- The comprehensive scope of general obligations set forth in Article I totally banning chemical weapons and all conceivable relevant actions are bearable because they not only enhance security, but because they are absolutely non-discriminatory; each State Party must meet them on an equal basis. In cases of non-compliance, the CWC provides safeguards through provisions for as-

sistance and protection against CW and through measures to ensure compliance. This is one of the basic balances to be found in the CWC.

- Another basic balance is the equilibrium between credible verification and the protection of national security interests. The verification provisions provide sufficient deterrence against potential violators; however, if a suspicion arises, it can be transformed from a bilateral concern (request for challenge inspection) into a multilateral task to verify whether a violation had taken place. The verification procedures themselves contain a balance to protect individual State Party rights (national security concerns not related to CW) versus multilateral obligations.
- With regard to verification of chemical industry, a careful equilibrium was struck between the interests of industrial states desiring broad, equitable verification provisions applied geographically with the interests of developing states to minimize the impact of such verification on their industrial development and to increase cooperation in the field of development. A key element in this balance was the undertaking of parties (meaning the statement by the Australia Group) to review CW nonproliferation export controls with the aim of removing them for parties in full compliance with the Convention. The compromise solution allowed States Parties flexibility in maintaining trade restrictions for national security and foreign policy reasons.
- A balance was struck in the composition of the Executive Council. The majority of countries in the Council had to come from the developing world, representing the overall majority of countries. The minority of industrialized countries' interests were balanced through the provision of a specified number of "industrial seats." The number and criteria for seats were further developed to balance the interests within areas and regions, as well as on a global basis in a north-south, east-west and political sense.

OVERVIEW OF THE CONVENTION

The CWC is historic in the scope of its provisions (e.g., its extensive verification provisions and its application to non-government activities, including private industry) and the number of countries involved in its development (39 active negotiators, plus about 37 participating observers).

The CWC consists of a Preamble, 24 Articles and 3 Annexes (Annex on Chemicals, Annex on Implementation and Verification, and the Annex on the Protection of Confidential Information). The basic obligations of the CWC are set forth in the Articles, with the more detailed implementing procedures contained in the Annexes. The Annexes are considered an integral part of the CWC and have the same legal status as the Articles.

The CWC prohibits States Parties from restricting their basic obligations by placing reservations against the Articles. However, the CWC allows reservations against the Annexes as long as they are compatible with the object and purpose of the CWC.

During the negotiations, the U.S. proposed that reservations be permitted. However, we received no support for this position. The prohibition against imposing reservations against the Articles is intended to prevent States Parties from undermining the basic provisions of the Convention and creating an unequal system of obligations.

Modifications to the CWC Articles and key provisions of the Annexes (protection of confidential information, challenge inspection and related definitions) may be made only through a stringent, formal amendment process requiring three conditions: (1) the support of a majority of all States Parties, (2) no State Party casting a negative vote, and (3) ratification by all the supporting States Parties. The U.S. will be present and voting at all amendment conferences, thus ensuring the opportunity for the Senate to consider any future amendment approved by the conference.

Recognizing the need for possible technical/administrative changes to the rest of the Annexes, based on future technological developments and practical experience, the CWC provides simplified procedures for making changes that do not constitute amendments to the Convention. These provisions were adapted from similar provisions found in other arms control agreements to which the U.S. is party, e.g. the CFE treaty.

REVIEW OF THE KEY PROVISIONS

The following section highlights and explains those aspects of the key provisions of the Convention of particular interest to the U.S.

PREAMBLE

During the negotiations, questions arose to whether and how the possible wartime use of herbicides should be dealt with in the Convention. Many countries believed that the use of herbicides should be specifically banned under the Convention. The U.S. had long maintained that herbicides were not chemical weapons and should not be included in the Convention; the U.S. believed that the use of herbicides was adequately covered under the provisions of the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques. That Convention prohibits parties from engaging in military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects as a means of destruction, damage or injury to any other party. During the final months of negotiations, this issue was finally resolved by adding a paragraph in the preamble reiterating the already existing prohibition on the use of herbicides.

ARTICLE 1 (GENERAL OBLIGATIONS)

Article I contains the general obligations of States Parties, specifically prohibiting them from:

- developing, producing, otherwise acquiring, stockpiling or retaining chemical weapons or transferring chemical weapons, directly or indirectly, to anyone;
- the use of chemical weapons in any circumstances, (including retaliatory use, which many countries protected with reservations to the 1925 Geneva Protocol);
- engaging in any military preparations to use chemical weapons or assisting, encouraging, or inducing, anyone to engage in any activity prohibited to States Parties; and
- using riot control agents as a method of warfare.

Article I also obligates each State Party to:

- destroy its chemical weapons and chemical weapons production facilities as well as any chemical weapons it abandoned in other States Parties.

The issue of whether and how the possible wartime use of riot control agents (RCAs) should be dealt with in the Convention was also contentious, and it was only during the final months of negotiations that compromise text was achieved.

The U.S. had long maintained that RCAs were not chemical weapons and thus should not be included in the Convention; RCAs had legitimate civilian law enforcement and defensive military applications. The U.S. defended its need to protect its policy on military use of RCAs, stressing that its use was subject to Presidential approval and the U.S. policy was no first use except in defensive modes to save lives. Other countries, including many of our allies, acknowledged the need for use of RCAs in law enforcement situations. They were concerned, however, that RCAs would constitute an immediate risk and danger if they were allowed to develop into a new generation of non-lethal but effective chemical agents of warfare, causing insurmountable problems in trying to distinguish between “real” and “non-lethal” chemical weapons on the battlefield, as well as between “real” and “non-lethal” chemical warfare units.

The compromise reached on this issue was to simply ban the use of RCAs as a method of warfare. This prohibition applies only to their use as a method of warfare in international or internal armed conflict. Uses of RCAs for operations such as normal peacekeeping operations, humanitarian and disaster relief missions, counterterrorism and hostage rescue are unaffected by the Convention.

The Convention allows the use of toxic chemicals for purposes not prohibited under the Convention, such as their use for law enforcement, including domestic riot control. Law enforcement uses could include the use of chemicals in executions. RCAs are defined in a section separate from chemical weapons to indicate that while the Convention prohibits their use as a method of warfare, they themselves are not considered chemical weapons. Declarations related to RCAs are limited to the names and formulae for chemicals held for riot-control purposes. Other than annual updates to these declarations, there is no requirement for other reporting or routine inspection. This approach takes into account the need for identification to preclude future accusations of chemical weapons use, while recognizing the impracticality of routine reporting and inspection of States Parties’ holdings of RCAs.

ARTICLE II (DEFINITIONS)

Article II contains the definitions for the critical terms relevant to the general obligations contained in Article I and the responsibilities outlined in further Articles. Terms associated with verification are defined in the Verification Annex.

With regard to the definition of "chemical weapons," the negotiators debated whether to attempt to define specifically what chemical activities were to be prohibited, or to prohibit all activities except those specifically not prohibited. The latter approach was chosen to facilitate verification and to preclude loopholes with regard to unknown or future chemicals of possible concern. Thus, "chemical weapons" applies, *inter alia*, to "toxic chemicals and their precursors, except where intended for purposes not prohibited under this Convention, as long as the types and quantities are consistent with such purposes." A toxic chemical is defined as "any chemical which through its chemical action on life processes can cause death, temporary incapacitation or permanent harm to humans or animals. This includes all such chemicals, regardless of their origin or their method of production, and regardless of whether they are produced in facilities, in munitions or elsewhere."

Non-prohibited purposes are:

- (a) industrial, agricultural, research, medical, pharmaceutical or other peaceful purposes;
- (b) protective purposes, namely those purposes directly related to protection against toxic chemicals and to protection against chemical weapons;
- (c) military purposes not connected with the use of chemical weapons and not dependent on the use of the toxic properties of chemicals as a method of warfare; and
- (d) law enforcement including domestic riot control purposes.

ARTICLE III (DECLARATIONS)

Article III requires specific declarations from States Parties with respect to chemical weapons, including old chemical weapons and abandoned chemical weapons, chemical weapons production facilities, chemical weapons development facilities, and riot-control agents.

Article III is intended to require a "yes or no" response with some accompanying detail. If the answer is "yes", then the State Party must carry out the responsibilities outlined in the relevant Articles and their related Annex provisions, particularly Article IV (chemical weapons) and Article V (CW production facilities).

States Parties must declare facilities designed, constructed or used since January 1, 1946 primarily for the development of chemical weapons; however, the CWC does not contain provisions for routine inspections of such facilities. Since development facilities are apt to be used for other sensitive, non-CW purposes, routine monitoring was not considered to be desirable. However, under challenge inspection provisions, these facilities are subject to a somewhat more stringent regime than non-declared facilities.

States Parties must declare chemicals held for riot-control purposes and update their initial declarations if changes occur.

ARTICLE IV (CHEMICAL WEAPONS)

Article IV spells out the basic obligations of States Parties with regard to the destruction of chemical weapons, including detailed declarations, reporting, verification and monitoring of declared stockpiles and the destruction process.

Article IV and its corresponding portion of the Verification Annex require the destruction of chemical weapons according to a fixed percentage over a ten-year period. The provisions allow for possible slippage of interim destruction phases within the ten-year overall period and permit an extension of up to five additional years beyond the initial ten. Such extensions, however, must be accompanied by specific plans for achieving the planned destruction and stringent verification measures, and must be approved by the Conference of the States Parties.

Destruction of chemical weapons is one of the core provisions of the Convention which defines the time frame within which chemical weapons will remain in existence. Negotiating countries, including the U.S., desired the tightest feasible deadlines possible for destruction of chemical weapons. However, the Russians noted there would be problems in meeting this deadline, making it difficult for the Russian Federation to ratify. Therefore, a compromise was struck, whereby the ten-year destruction period was retained, with extension an unlikely, but not entirely impossible event. The sequence and pace of destruction provide some flexibility at the outset, while assuring that chemical weapons will be destroyed at a higher pace at the end. If an extension becomes unavoidable, the decision to allow an extension will be up to the Organization for the Prohibition of Chemical Weapons (OPCW), which will also have the right to set a number of conditions on the State Party requesting an extension.

The largest verification costs are associated with verification of CW stockpiles and the destruction of chemical weapons and CW production facilities. Article IV re-

quires CW possessors to pay for verification of their relevant activities unless the Executive Council decides otherwise.

To avoid duplication of effort and minimize costs, Article IV allows the Executive Council to approve the use of bilaterally agreed verification regimes (whereby the involved States Parties verify and monitor each other's destruction activities), as long as the verification measures are consistent with the CWC. The U.S. proposed this provision based on our desire for direct involvement in monitoring the Russian CW destruction effort, our expected bilateral destruction agreement with the Russians, and our desire to minimize costs where possible. Bilateral verification is expected to lessen the costs for the U.S., Russia and the OPCW. The OPCW would have the right to monitor implementation of such agreements; such monitoring would be funded by the OPCW.

ARTICLE V (CHEMICAL WEAPONS PRODUCTION FACILITIES)

Article V spells out the basic obligations States Parties with regard to the closure and destruction of chemical-weapons production facilities. A State Party must immediately cease production of chemical weapons on the day the CWC enters into force for it.

During most of the negotiations the U.S. and other negotiating countries took the position that all CW production facilities must be destroyed in order to assure that no stand-by capacity for production could be retained. However, near the end of the negotiations, Russia expressed a compelling need to convert certain facilities to non-prohibited purposes. Recognizing this need, the compromise solution struck by the negotiators was as follows:

CW production facilities may be converted temporarily for use as destruction facilities and, in exceptional cases of compelling need, States Parties may request approval from the Executive Council and the Conference of the States Parties to convert CW production facilities to purposes not prohibited by the Convention. However, approval is contingent on the State Party's acceptance of stringent conditions in Part V of the Verification Annex which, *inter alia*, preclude the use of a converted facility to produce, process or consume Schedule 1 or 2 chemicals or, unless approved by the Executive Council, to produce any highly toxic chemicals.

Similar to Article IV, Article V requires States Parties possessing chemical weapons production facilities to pay for their destruction and verification, and permits the use of bilateral agreements (subject to Executive Council approval) in verifying and monitoring such activities. Part V in the Verification Annex outlines the phased ten-year destruction schedule.

ARTICLE VI (ACTIVITIES NOT PROHIBITED UNDER THIS CONVENTION)

Article VI outlines States Parties' obligations for initial declarations, annual reporting, and inspection of chemical industry activities. These obligations are based on CWC-specified numerical thresholds for production, processing, consumption, acquisition, transfer, and retention of chemicals.

Chemicals listed in the Convention are separated into categories of risk (designated Schedules 1, 2 and 3 in decreasing order of perceived risk), based on, *inter alia*, their toxicity, whether they have been stockpiled as chemical weapons, their potential role in the production of chemical weapons, and the degree to which they are used in industry. Thresholds differ for declarations and inspections. Declaration thresholds are lower in order to capture more information regarding States Parties' activities, which contributes to compliance determinations. Routine inspection thresholds are higher in order to balance the need for monitoring scheduled chemical activity at declared facilities with the desire to limit the burden imposed on industry. The CWC also contains another category for monitoring chemical industrial production, entitled "other chemical production facilities." These are facilities which do not produce Scheduled chemicals but pose a risk to the Convention based on their potential to produce Scheduled chemicals.

Parts VI through IX of the Verification Annex specify the production, and in some cases processing and consumption, thresholds and the declaration and verification regimes associated with each of the three Schedules and the other chemical production facilities. They also contain certain restrictions on trade in scheduled chemicals.

In addition to the restrictions on trade of Schedule 1 chemicals, the U.S. proposed restrictions on trade of Schedule 2 and 3 chemicals between States Parties and non-parties as an incentive for countries to join the Convention. Other negotiating states supported restrictions on Schedule 2, but were reluctant to restrict automatically trade in Schedule 3 chemicals. Thus, the compromise solution was as follows:

—Beginning three years after the CWC's entry into force, Schedule 2 chemicals may only be transferred or received from States Parties; until then, States

Parties must require detailed end-use certificates from non-State Parties. Additionally, States Parties are required to adopt measures to ensure that the transferred chemicals are used only for purposes not prohibited under the CWC.

—For Schedule 3 chemicals, end-use certificates requiring the same information as for Schedule 2 are required for trade with non-States Parties. Five years after entry into force, the Conference of the States Parties will consider whether other restrictive measures on trade of Schedule 3 chemicals should be applied.

ARTICLE VII (NATIONAL IMPLEMENTATION MEASURES)

Article VII of the CWC obligates each State Party to prohibit individuals and legal entities, such as corporations, anywhere on its territory or in any other place under its jurisdiction from undertaking any activity prohibited to the State Party itself under the Convention. This Article also requires each State Party to enact penal legislation (i.e., legislation that penalizes conduct, either by criminal, administrative, military or other sanctions) with respect to such activity within its borders and to such activities outside its territory by individuals possessing its nationality.

In consultation with Congressional staff and the chemical industry, the Administration is drafting proposed implementing legislation which will contain a comprehensive set of legal obligations and mechanisms for ensuring that the U.S. can meet its obligations under the CWC. This legislation is expected to be provided to the Congress soon.

Article VII also requires each State Party to establish a National Authority as the primary liaison with the OPCW and other States Parties. The National Authority framework and operational procedures are left to States Parties to develop. The Administration is working to develop detailed operating procedures.

ARTICLE VIII (THE ORGANIZATION)

Article VIII outlines the structure of the OPCW and its bodies and defines their relationships, general operating procedures, and responsibilities. The OPCW will be activated upon entry into force of the CWC and will be headquartered in The Hague.

In open-ended consultations in the CD, after a thorough and transparent analysis of the competing bids of three bidding states—Austria (Vienna), the Netherlands (The Hague) and Switzerland (Geneva)—the CD members reached consensus on The Hague. This decision was concluded on the basis of factual criteria.

The OPCW consists of essentially three main bodies—the Conference of the States Parties (CSP), the Executive Council (EC) and the Technical Secretariat (TS).

The CSP, consisting of all States Parties, is the principal decision-making organ, responsible for overseeing implementation of the Convention and the activities of the EC and TS.

The EC serves as the executive organ, overseeing day-to-day activities. It is a political body, consisting of 41 rotating members, with specified numbers of countries chosen from five geographical regional groups. Representation takes into account whether States Parties have a significant national chemical industry. This criterion, along with a Western Group political agreement, essentially ensures the U.S. a permanent seat. It also ensures that those States Parties most affected by the CWC provisions on chemical industry have a say in the operation of the CWC regime.

The TS consists of a chief administrator (the Director General), inspectors, and scientific, technical and administrative personnel. The TS is responsible for carrying out the verification measures of the Convention as well as its administrative functions.

ARTICLE IX (CONSULTATIONS COOPERATION AND FACT FINDING)

Article IX, along with the related procedures in Part IX of the Verification Annex, is the heart of the verification provisions of the Convention, providing procedures to deal with States Parties' concerns about compliance.

The Article establishes procedures and time frames for cooperative efforts among States Parties (both with and without the involvement of the Executive Council and the Conference of the States Parties) to clarify situations that may be ambiguous or give rise to concerns regarding compliance.

Additionally, the Article provides procedures for requesting and carrying out challenge inspections. The rights and responsibilities of the requesting State Party, the inspected State Party and the international inspection team are spelled out, with more detailed procedures and specified time frames contained in Part X of the Verification Annex.

All negotiating countries supported the need for a challenge inspection regime in the Convention and recognized that the regime envisioned would be unprecedented in the verification of a universally applicable arms control and disarmament treaty. At the same time, the need to balance verification interests with protection of non-CW related interests, and the rights of individual States Parties with the rights of the community of States Parties were understood.

Some negotiating countries took the position that verification interests outweighed the need for protection of non-CWC related interests and called for unimpeded access; others argued otherwise, supporting the right to refuse any access. Proposals for time frames for provision of access ranged from a few hours to six months. Some countries emphasized the need for individual States Parties to make their own decisions about compliance; others believed the Executive Council should decide. Some countries, concerned about abuse of challenge inspection rights, wanted to predicate a challenge inspection upon an Executive Council decision that no abuse was involved; others wanted the inspection to proceed without involving any such decision. These and other concerns required a very carefully crafted balance, resulting in key provisions as follows:

- the right of any State Party to request and have carried out a challenge inspection of any location or facility located on the territory or any other place under the jurisdiction or control of another State Party;
- the Executive Council's ability to block a challenge inspection (if the inspection request is considered to be frivolous, abusive or beyond the scope of the CWC), circumscribed by a very limited time frame (12 hours) for the decision process and the requirement for a $\frac{3}{4}$ majority vote of all Council members to deny the inspection;
- specified time frames within which the inspected State Party must be notified of the impending inspection, the site to be inspected, and the arrival of inspectors; and time frames within which the challenged site must be secured; the inspectors transported to the site; access provided within the site (no later than 120 hours after initial notification of inspection), the inspection concluded; and the inspectors departed from the site;
- the right of the inspected State Party to negotiate the extent and nature of access within the inspected site and to provide alternatives to full and comprehensive access, accompanied by the obligation to make every reasonable effort to demonstrate compliance;
- following the inspection, review by the Executive Council of the final inspection report and discussion of any Party's concerns as to whether non-compliance has occurred, and whether the inspection request was within the scope of CWC or misused for non-CWC purposes. There is no requirement that the Executive Council take a decision on compliance, thus not undercutting the right of individual States Parties to make their own decisions about compliance. If the Council decides, after its review, that follow-on action after its review is needed, it may take measures to redress the situation, call a special meeting of the Conference of States Parties, and recommend measures to be taken. In the case of abuse, the Council will examine whether the requesting State Party should bear any of the financial implications of the inspection.

ARTICLE X (ASSISTANCE AND PROTECTION AGAINST CHEMICAL WEAPONS)

This Article further spells out the right of States Parties to develop and retain defenses against chemical weapons and, for transparency purposes, requires annual provision to the OPCW of information on such programs. States Parties may also provide assistance to other Parties that are threatened or attacked with chemical weapons. "Assistance" is defined as the "coordination and delivery to States Parties of protection against chemical weapons, including, *inter alia*, the following: detection equipment and alarm systems; protective equipment; decontamination equipment and decontaminants; medical antidotes and treatments; and advice on any of these protective measures."

The Article was drafted to allow states parties flexibility in the nature of protective assistance they would elect to provide, taking into account the latitude necessary for states' foreign policies. Measures outlined in the CWC range from contributions (unspecified) to a voluntary fund, conclusion of agreements with the international CW organization concerning the procurement, upon demand, of assistance, and declarations of what assistance might be provided in a response to an appeal from the organization. As a practical matter, shortly after entry into force, States Parties, will have to choose one of these measures.

Before this time, the U.S. Government will, in consultation with the Congress, decide what form of assistance outlined in the CWC the United States will elect to provide.

ARTICLE XI (ECONOMIC AND TECHNOLOGICAL DEVELOPMENT)

Many developing countries sought provisions in the CWC requiring not only implementation in a manner that "avoids hampering" their economic and technological development, but also requiring States Parties to lift or relax export controls among States Parties. However, creating an obligation to lift or relax export controls was unacceptable to the U.S. and other countries supporting national determination of trade policies to facilitate nonproliferation and other interests. To balance negotiating countries' desires, the provisions in this article were carefully crafted, e.g., to require States Parties to "undertake to facilitate" trade in chemicals, related equipment, and information; thus, preserving the right of States Parties to maintain or impose export controls for foreign policy or national security reasons, such as those agreed by the Australia Group.

ARTICLE XIII (RELATION TO OTHER INTERNATIONAL AGREEMENTS)

This Article simply states that the CWC shall not limit or detract from the obligations assumed by states under the 1925 Geneva Protocol and the 1972 Biological and Toxin Weapons Convention (BWC). The CWC contains provisions more stringent than those under the above-cited agreements. However, until countries become parties to the CWC, or if they withdraw from the CWC, this provision is intended to make clear that their obligations under these other agreements remain valid.

CHEMICAL ANNEX

The Annex on Chemicals contains three categories of treaty controlled chemicals (designated Schedules 1, 2 and 3 in decreasing order of perceived risk) based, *inter alia*, on the toxicity of the chemicals, whether they have been stockpiled as chemical weapons, their potential role in the production of chemical weapons, and the degree to which they are used in industry. The Annex on Chemicals also provides criteria to be taken into account in future placement or rearrangement of chemicals on the schedules. The chemicals listed in the Annex are not intended to be all inclusive. To allow for unknown chemicals yet to be declared and potential future chemicals of concern, the Annex is flexible, permitting additions or changes without a formal amendment process. This flexibility was also designed with the interests of chemical industry in mind. Industry had expressed concern that the very restrictive threshold applied to the production of Schedule 1 chemicals would preclude future research and development for the use of such chemicals in, e.g., medical treatment.

VERIFICATION ANNEX

This Annex contains the detailed provisions for activities required to implement the Articles of the Convention, e.g., for verification and destruction of chemical weapons and CW production facilities. It defines terms associated with verification and provides general rules outlining the rights and obligations of States Parties and inspectors, as well as verification procedures for routine and challenge inspections. It also establishes the verification regime and destruction for old chemical weapons and abandoned chemical weapons, which, because of the lesser risk posed by such weapons, is somewhat less stringent than the regime required for stockpiled chemical weapons. Finally, it provides procedures for investigating the alleged use of chemical weapons.

CONFIDENTIALITY ANNEX

This Annex sets out procedures for the protection of sensitive, non-CW related information of national security and commercial industry concern. It contains measures for the designation by States Parties of information to be considered confidential, procedures for internal handling and release of such information by the OPCW, inspection procedures to avoid the unnecessary disclosure of such information, and procedures in cases of breaches or alleged breaches of confidentiality. Based largely on the concerns expressed by chemical industry about the protection of proprietary information, the U.S. proposed and presented a draft annex on confidentiality for inclusion in the Convention. This Annex was an important factor in achieving industry support for the Convention, as it specifically provides for the protection of information both during and after inspections, as well as for the protection of information gained from declarations. It also provides measures to address concerns about alleged breaches.

RELATIONSHIP OF THE CHEMICAL WEAPONS CONVENTION TO THE U.S.-RUSSIAN
AGREEMENT ON THE DESTRUCTION AND NON-PRODUCTION OF CHEMICAL WEAPONS

As a means of assisting the development of the multilateral CWC, and later as a complement to it, the United States and the former Soviet Union, and later the Russian Federation, have been negotiating a separate bilateral agreement providing for destruction and mutual verification of our chemical weapons stockpiles. At the June 1, 1990 Washington Summit, Presidents Bush and Gorbachev signed the Agreement Between the United States of America and the Union of Soviet Socialist Republics on Destruction and Non-Production of Chemical Weapons and on Measures to Facilitate the Multilateral Convention on Banning Chemical Weapons, known as the Bilateral Destruction Agreement (BDA). The key provisions of this agreement are: cessation of chemical weapons production; destruction of the vast bulk of declared stocks (all but 5000 agent tons); on-site inspections of storage, production and destruction facilities; and development and use of safe and environmentally sound methods of destruction. In March 1993, U.S. and Russian delegations agreed ad referendum on detailed implementing procedures and updated provisions for the BDA, including on the conversion of CW production facilities consistent with CWC provisions. These were accepted by the United States. Since that time, the Russian Federation has proposed significant changes to the BDA, primarily to the portions of the documents concerning conversion of former CW Production Facilities. Discussions are continuing in an effort to resolve the remaining differences.

While important in its own right, the BDA is less relevant than it was four years ago. At the time the BDA was signed, it was assumed that the CWC was years away. The original intent of the BDA was to achieve Moscow's commitment to chemical weapons destruction as early as possible and to facilitate progress on the CWC. In anticipation of the BDA, the CWC allows for bilateral agreements between States Parties on destruction and verification as long as they are consistent with the provisions of the Convention. The CWC requires States Parties that possess chemical weapons and CW production facilities to pay all of the costs of their destruction as well as costs of OPCW verification of such destruction.

The OPCW must approve the BDA verification provisions. The United States and the Russian Federation would then verify each other's destruction efforts, with general oversight by the international inspectorate. This would reduce costs for the United States and the Russian Federation somewhat, as well as reduce the expenses of the OPCW.

The decision of the Clinton Administration to submit the Chemical Weapons Convention to the Senate for advice and consent in advance of completion of the bilateral agreement was based on a number of reasons. In the 1980s the primary rationale for the Convention was to deal with the Soviet chemical weapons program, then perceived as a major threat to NATO security. Now the Soviet Union is no more and the risk of Russia using the chemical weapons it inherited from the Soviet Union against the U.S. and NATO has substantially diminished. However, U.S. concern about the acquisition and potential use of chemical weapons by other countries has grown and the U.S. believes it is important to spur the commitment of these countries to the Convention. In the post Cold War period, the primary value of the Convention is to deal with other countries' chemical weapons programs and to prevent further proliferation and use of chemical weapons worldwide.

PREPARATORY COMMISSION

The signatories to the CWC have established the Preparatory Commission to prepare for the implementation of the Convention. Since it began work on February 8, 1993, the Preparatory Commission has been engaged in developing the organizational structure for the CWC international organization and its rules, regulations and operating procedures. The Preparatory Commission has established the predecessor body to the international technical body (the Provisional Technical Secretariat or PTS), and that body's budget and operating procedures. These will serve as a basis for developing the future Technical Secretariat. Foremost among the Provisional Technical Secretariat's tasks are logistical and administrative preparations to receive declaration data and to plan for implementing inspections immediately after entry into force of the CWC.

The Preparatory Commission is now largely focusing on developing the technical operating procedures for the conduct of inspections and provision of declarations.

The states participating in the Preparatory Commission adopted by consensus a time frame for work based on the earliest possible date for entry into force of the CWC—January 13, 1995. Senior PTS officials have expressed assurance that the PTS will be ready for entry into force by that date.

The Preparatory Commission was tasked to develop technical, detailed operating procedures. Preparatory Commission participants understand that the Commission cannot revise the provisions of the Convention or develop procedures that undercut or change the basic provisions of the CWC. Therefore, the work of the Preparatory Commission will not substantively affect the CWC treaty text for which the Clinton Administration is seeking Senate advice and consent to ratification.

The CHAIRMAN. Thank you very much, indeed.

I have a few questions here which I would appreciate your enlarging upon. I think the Chemical Convention can enter into force 180 days after the 65th country has ratified it, but no earlier than January 13 of next year. Now, my question to you is, do you expect 65 nations to ratify the treaty by July 17, 1994, the deadline that must be met if the treaty is to enter into force next January?

Ambassador LEDOGAR. Mr. Chairman, we think we have a very good chance of making that number by that time. It will be greatly influenced by the action of the United States with regard to ratification. All eyes are upon us in many respects.

We have received through diplomatic channels, in partial answer to a survey that we are conducting worldwide, indications that there are a couple of dozen countries that are very close to ratification, and our contacts are not complete. There are 157 countries that have signed the Convention. We expect that most of them intend to move forward expeditiously.

The CHAIRMAN. So, you believe that sufficient countries to bring it into effect will have ratified it.

Ambassador LEDOGAR. That is our best estimate at this time.

The CHAIRMAN. The countries that have abstained, the principal abstainers, which ones would they be?

Ambassador LEDOGAR. Well, there are about 25, 30 countries that have not yet signed.

The CHAIRMAN. Let me put it another way. How many of these will not sign?

Ambassador LEDOGAR. I have no way of really knowing that. I expect that quite a few of them will sign. There are only a few that have taken public positions indicating that they will not sign until certain conditions that they have set have been met. Whether that will prove to be the case as we build pressure, as we establish an international norm for conduct in this area, remains to be seen. The key countries that I would choose from the list that have not yet signed for special attention and concern would be Iraq, North Korea, Libya, Syria. We would also like to see Egypt and Jordan come on soon.

The CHAIRMAN. Thank you.

Could you trace for our committee how the verification issue was handled in the negotiations to strike a balance between proper reassurance and unwanted intrusion?

Ambassador LEDOGAR. Mr. Chairman, that was one of the toughest and longstanding, hard-fought issues in the entire negotiations. There is almost a zero sum tradeoff between those two concerns. All of us want to achieve the maximum verification possible and that requires intrusiveness. That requires the ability to have the inspectors arrive promptly before circumstances that have caused concern could be changed.

In the early days of the negotiations, as you no doubt recall, the jargon expressed was that we were seeking a verification regime

that would allow inspectors to go anywhere anytime with no right of refusal. As the negotiations went on, we realized that we ourselves and many other participants could not live with that expression literally—that opening up the entire United States of America, all Government installations, including intelligence installations and private industry. Additionally, the constitutional rights of citizens and corporations and the right of corporations to protect their proprietary information had to be accommodated. So, we sought to strike a balance between the two, between intrusiveness and the protection of U.S. national interests.

I think that what we have come up with is the optimal that can be achieved in that. There were and probably still are today countries that would have preferred to see more balance on one side or more balance on the other. This is natural because some countries do not have the kind of intelligence and national security assets to protect that a superpower, such as the United States, needs to protect. Other countries were seeking excessive protection that caused suspicion as to whether or not they were trying to cover up chemical weapons activities. On the other hand, it was easy for certain countries to say verification should be unrestricted and that we should try to adhere to anywhere, anytime, no right of refusal. It was a long and arduous negotiation, and the verification provisions are a very carefully detailed section of the treaty that has very precise provisions.

The CHAIRMAN. In view of the difficulties that we have had with North Korea and Libya and Iraq, do you believe that the verification and sanctions provisions are adequate?

Ambassador LEDOGAR. Well, of course, if they become states parties, then we will have very strong tools within the context of the Convention to require them to declare their facilities, to require them to open their facilities for routine inspections, to require them to destroy their existing chemical weapons programs and production facilities, and otherwise to put very strong constraints against the possibility that they would continue their activities.

If they do not sign up to the Convention, then we will have to resort to international pressure, diplomatic means, and things of that sort. They will feel increasing pressure not only from world public opinion, but also from the constraints, as I mentioned, about the gradual tightening and shutting down of international trade in specified chemicals between those states that stay outside and the states parties to the Convention.

The CHAIRMAN. These would be the consequences then of any nation that violated the CWC. Would that be correct?

Ambassador LEDOGAR. Yes, that is correct.

The CHAIRMAN. What do you see from your own knowledge as the greatest obstacle to the CWC's effectiveness?

Ambassador LEDOGAR. The greatest obstacle to its effectiveness, I would say, is if we do not do a good job in organizing the international structure that is to oversee implementation. That would be a serious problem. I believe we are doing a good job. We are off to a very good start in The Hague. We have every reason to believe that there will be international cooperation to try to work out the details and get the implementation regime correctly.

The question of adequate funding for the destruction of chemical weapons is also an important aspect that we will have to look at in the future.

The CHAIRMAN. Thank you.

In connection with the Biological Weapons Convention and in view of your experience in negotiating the CWC, do you believe the United States should press strongly to reopen negotiations on the Biological and Toxic Weapons Convention of 1972 in order to establish the verification regime which does not presently exist for that Convention?

Ambassador LEDOGAR. Mr. Chairman, the Biological Weapons Convention is not within the responsibility of the Conference on Disarmament and I have had no direct involvement with it. Currently this week we have a U.S. team in Geneva that is engaged in a review of the Biological Weapons Convention, looking forward to a conference that would confront the kinds of steps that you just mentioned, but I am not sufficiently versed on that issue to address it in more detail. I can be sure to get the committee the responses on BWC that it wishes.

The CHAIRMAN. Then I would like to turn for a moment to a different subject, the test ban. I know you are leading the effort in the Conference on Disarmament to negotiate a comprehensive ban on nuclear testing. I wonder what you see as the significant obstacles to the successful completion of the Test Ban Treaty.

Ambassador LEDOGAR. Mr. Chairman, we began these very important negotiations in January. We have just completed the first 10 weeks. I think we are off to a good start. I think it is a good start especially in terms of getting organized promptly, getting the subcommittee structure set up, getting good people to develop work programs.

It is a curious negotiation in that the participants include the five declared nuclear weapons states who have special responsibilities with regard to the organization of a comprehensive test ban. One could argue that it is unlikely that a CTBT would work very well if you did not have all five of the declared nuclear powers participating.

So, we have in Geneva a separate side caucus of the five. We call them the P5 because they are also the permanent members of the Security Council. The P5 talks are very profound, very well engaged, but also worrisome because among the five, there are a couple of countries that are not as committed as the United States and the others are to the very early achievement of this objective. I refer specifically to China, which, as you know, is the only one of the five which has not joined in a moratorium on nuclear testing.

China says that it is committed to complete the Test Ban Treaty by 1996. We would like to see it done much before that, particularly with the objective of the April 1995 Nonproliferation Treaty Review Conference in mind. The U.S. approach, President Clinton's direct instruction to me, is to complete a comprehensive test ban treaty as soon as possible. You know better than I do that U.S. law requires that we push for a CTBT by September 1996.

But we think that we are making good progress. We think that there is an interesting combination of the two series of talks side-by-side that does not restrict us to a seriatim negotiation first

among the five and then bringing it to the wider forum. You can bring the views of the 39 to bear even within the forum of the 5.

So, I am optimistic that we can make you a very significant progress. I think to complete it this year would be an outside shot, but to have very substantial results by the time of the April 1995 NPT Review Conference is very doable.

The CHAIRMAN. What do you see as the most significant obstacle to its completion? Is it the reluctance of China? Is it any other particular major obstacle?

Ambassador LEDOGAR. Well, the curious feature of the CTBT negotiations is that among the 39 participants, there are two schools of thought as to what it is all about. The majority view held by mostly the developing world, but also some industrialized countries, is that the objective of a comprehensive test ban is to take the first step to make nuclear weapons obsolete and thus to begin the process of nuclear disarmament through a test ban.

The view of the United States and a number of others, including the Russian federation, our British and French allies, and so forth, is quite the opposite. We believe that we can maintain the nuclear deterrent but without testing, that we are not making our weapons obsolete. What we are doing is we are going to keep them safe and reliable but by other means. The question of the other means is one of the details that has to be worked out first among the five and then accepted by the broader negotiating parties.

The CHAIRMAN. What would be the attitude of the countries that are not officially nuclear powers but we believe have potentiality, such as Pakistan, India, Israel, South Africa, whatever others there are?

Ambassador LEDOGAR. Well, of those countries you mentioned, Mr. Chairman, Pakistan and India are members of the CD. Israel and South Africa are observers. We do not know as much about the latter as we do about the former, but they have indicated that they are prepared to participate and we have seen no sign to the contrary in the negotiation of a Comprehensive Test Ban Treaty. There are certain issues that have not yet been joined, so we cannot predict with confidence that we will not run into problems with some of the so-called threshold states as they move further down the line.

The CHAIRMAN. Well, thank you very much for the detailed knowledge you bring to our committee. I congratulate you on the work you have been doing.

I would ask unanimous consent, without objection, the record remain open for further questions or comments from my colleagues until the end of this week. Unless you have any further thoughts, I would recess the committee at this time.

Ambassador LEDOGAR. Thank you, Mr. Chairman.

PREPARED STATEMENT OF SENATOR JEFFORDS

Mr. Chairman, I thank you for holding these hearings which present us with this opportunity to discuss an extremely important issue. I furthermore thank our distinguished witness for appearing before this committee.

For more than two decades, successive Administrations and Congresses have demonstrated their commitment to the successful negotiation of a comprehensive treaty banning chemical weapons. Many other nations have joined us in this quest. We now have before the Congress a document which reflects the will of the world and the culmination of countless hours of discussion and debate.

Chemical weapons are among the most feared and deadly weapons of war because of their grotesque and torturous effects on the human body and their indiscriminate effects on civilian populations.

The Chemical Weapons Convention which we are currently considering is perhaps the most far-reaching arms control treaty ever to be negotiated. It prohibits the development, production, stockpiling, transfer and use of chemical weapons. It bans both first-use and retaliatory use of chemical weapons. It regulates production of chemicals which could in turn be converted to use in chemical weapons.

More importantly, the Chemical Weapons Convention will eliminate one of the more abhorant classes of weapons. Within 10 years of its entering into force, all parties to the Treaty will be required to destroy their existing stockpiles of chemical weapons. The Treaty envisions an international commission to monitor compliance with the Treaty. All signatories will be subject to stringent reporting and inspection requirements.

We must not let ourselves believe that the mere act of ratifying this treaty represents the end of our efforts. Ratification is only the *beginning* of the end of chemical weapons. We must demonstrate our commitment to the successful implementation of this important agreement by ensuring that the commission which will monitor implementation and compliance with the terms of this Treaty has the technical competence, the resources and the respect to fulfill its mandate. We must be absolutely certain of the integrity of the verification process.

The Treaty represents a major step forward in our efforts to secure a safer and better future. We have labored long and hard to arrive at this point. We should not let this opportunity escape us. Mr. Chairman, I urge my colleagues to support ratification of this essential and important Treaty.

The CHAIRMAN. The committee is in recess.

[Whereupon, at 11:03 a.m., the committee adjourned, to reconvene at 10:31 a.m., May 13, 1994.]

CHEMICAL WEAPONS CONVENTION (TREATY DOC. 103-21)

FRIDAY, MAY 13, 1994

U.S. SENATE,
COMMITTEE ON FOREIGN RELATIONS,
Washington, DC.

The committee met, pursuant to notice, at 10:31 a.m. in room SD-419, Dirksen Senate Office Building, Hon. Claiborne Pell (chairman of the committee) presiding.

Present: Senator Pell.

The CHAIRMAN. The Committee on Foreign Relations will come to order.

This is the third hearing of our committee on the Chemical Weapons Convention which the administration submitted to the Senate last fall for its advice and consent. Our witnesses this morning include Hon. Walter Slocombe, Deputy Under Secretary for Policy, Department of Defense, an old friend of the committee; Dr. Harold Smith, Assistant to the Secretary of Defense for Atomic Energy in DOD; and Maj. Gen. David McIlvoy, Deputy Director for International Negotiations, Directorate for Strategic Plans and Policy, Joint Chiefs of Staff.

Our witnesses I hope will address the significance of the Convention with regard to our own defense plans and programs, provide their judgments as to whether the requirements set forth in the Convention regarding the extent and timetable of destruction can be met, identify projects costs for destruction of the chemical arsenal, and specify whether there are any difficulties anticipated in the implementation of the treaty.

We would be very interested, too, in whether the Joint Chiefs have reached an independent conclusion that the treaty is in our national security interest and that its verification provisions are such as to help insure that the United States could detect and react to any militarily significant chemical weapons program of a potential adversary.

We will start out our hearing with Deputy Under Secretary Slocombe.

STATEMENT OF HON. WALTER B. SLOCOMBE, DEPUTY UNDER SECRETARY FOR POLICY, DEPARTMENT OF DEFENSE; ACCOMPANIED BY MAJOR GENERAL DAVID W. McILVOY, USAF, DEPUTY DIRECTOR FOR INTERNATIONAL NEGOTIATIONS, DIRECTORATE FOR STRATEGIC PLANS AND POLICY (J-5), JOINT CHIEFS OF STAFF

Mr. SLOCOMBE. Thank you, Mr. Chairman. It is a pleasure and it is always an honor to be here again.

We are here to testify in behalf of the Department of Defense in support of the request of the administration that the United States Senate give its advice and consent to ratification of the Chemical Weapons Convention.

It is the desire of the administration that this treaty, with its prohibitions on chemical weapons, enter into force on its earliest possible date, which would be January 13, 1995, which would require early action by the U.S. Senate.

Since the conclusion of the First World War, the United States has continually sought prohibitions and controls on chemical weapons. Through our participation and leadership in this arms control process, the United States has, over time, gradually been able to reduce its reliance on chemical weapons and pursue a comprehensive ban on chemical weapons.

The Chemical Weapons Convention represents the culmination of those efforts.

The Geneva Protocol of 1925, which the United States ratified in January, 1975, was the first broadly recognized treaty to prohibit the use of chemical weapons. However, it did not provide for verification and did not prohibit the production or stockpiling of these weapons, and reservations were made by many States, including the United States, which continued to allow retaliatory use of chemical weapons.

In August of 1984, Vice President Bush presented a comprehensive draft chemical weapons treaty to the Conference on Disarmament in Geneva. Our evolving military capabilities and a desire to reduce the massive chemical weapons stockpile of the Soviet Union made support of this treaty possible from a military standpoint. A further important step was taken in June of 1990 when, in order to help stimulate the Multilateral Chemical Weapons Convention Negotiation, the Department of Defense supported by the conclusion by the United States with the U.S.S.R. of a Bilateral Destruction and Nonproduction Agreement, or the BDA.

The BDA fell short of completely banning the possession of chemical weapons because it allowed both sides, both the United States and the Soviet Union, as it then was, to retain 500 tons of chemical weapons agent at the end of the eighth year after entry into force of the Multilateral Convention.

This was an important step forward, but participants in the concurrent multilateral negotiations objected to retention of the retaliatory capability. In May 1991, the United States reenergized those negotiations by announcing that to demonstrate United States commitment to banning chemical weapons, we are formally foreswearing the use of chemical weapons for any reason, including retaliation, against any state, effective when the Convention enters into force, and we will propose that all states follow suit.

Further, the United States unconditionally commits itself to destruction of all our stocks of chemical weapons within 10 years of entry into force. This U.S. initiative by the Bush administration was the driving force that led to the conclusion of the Convention.

The CWC is not only an arms control treaty, it is also a non-proliferation regime. Through its prohibitions and its trade restrictions, the Convention will help to defuse regional instability by reducing all states' abilities to acquire chemical weapons by requiring the destruction of existing chemical weapons and by making states parties' activities transparent through declarations and intrusive monitoring procedures.

I am informed that 157 countries have now signed the CWC. The international consensus created by this large number of signatories will serve to highlight and isolate those countries which have not signed.

The international norm created by the CWC will enable the international community to apply political pressure on any state party that violates the treaty or that is not in compliance with its obligations. This pressure could include recommendations to the United Nations for sanctions against such a party.

It is important to note that three-quarters of the countries that we believe have chemical weapons programs have signed the Chemical Weapons Convention. The remaining quarter, although they include some countries of real concern, have isolated themselves. Should they remain outside the Convention after it enters into force, they will be subject to the trade restrictions on specific chemicals under the Convention.

From earlier hearings and from documents that are available to it, this committee is well aware of the key features of the Chemical Weapons Convention. Rather than repeat those here, I want to deal with several matters of direct concern to the Department of Defense. Some of these will be covered in more detail by Dr. Smith's statement later on.

These include our retaliatory capability, chemical weapons destruction, verifiability, protection of national security information, the status of our chemical defense program, and the use of riot control agents.

I think it is most useful to cast these as questions. First of all, having now renounced chemical weapons, even as a means of retaliation, how are we going to deal with the risk that a nonparty or a violator might use chemical weapons against us?

Historically, the position of the United States has been that we would deal with such a contingency in part by the threat to retaliate in kind.

The Department of Defense recognizes that the CWC will not be universal in coverage or universally complied with, at least at the beginning. But it believes that the ability to retaliate with chemical weapons is no longer an essential element in countering the possibility of possession of chemical weapons by other states.

Two successive administrations have concluded that U.S. national security is better served by concluding a comprehensive ban than by retaining a small retaliatory capability.

Fundamentally, the Defense Department supports giving up the right to retaliate with chemical weapons because we have an effec-

tive range of alternative retaliatory capabilities. Our protective capabilities have been and will be improved, partly as a result of Gulf War experiences. But we will not rely on protection alone.

For obvious reasons, we do not choose to specify in detail what responses we would make to a chemical attack. However, as we stated during the Gulf war, if any country were foolish enough to use chemical weapons against the United States, the response would be "absolutely overwhelming" and "devastating." That policy stands.

We have reached the judgment that we do not need to retain chemical weapons to deliver an effective response to the use of chemical weapons against us.

Adhering to a complete ban allows us to pursue, with strong international backing, our long-held goal of a universal prohibition on chemical weapons, and it also saves us not inconsiderable costs and controversy that were associated increasingly with maintaining a chemical stockpile for retaliation.

Mr. Smith will describe more fully our protective program and it is covered, at least briefly, later in my statement.

Second, will we have to spend a lot of money to destroy stocks? I suppose the short answer is yes. The destruction of chemical weapons will be a complex and costly process, and it is required under the Chemical Weapons Convention. However, it is worth pointing out that the United States had, before signing the Convention, assumed voluntarily the overwhelming majority of this obligation.

In June 1985, the Chemical Warfare Review Commission reported what was well known, that only a small fraction of the total stock of U.S. chemical agent was in a form that had characteristics suitable for employment on a modern battlefield. It recommended an accelerated program to destroy in an environmentally safe way the existing stockpile of obsolete chemical weapons. The Commission also endorsed the concurrent binary chemical weapons modernization program. Many people, including me, believe that the United States decision to build binary chemical weapons was a key factor in influencing the Soviet Union to negotiate seriously on both the bilateral and multilateral chemical weapons agreements. But this was the beginning of a formal recognition that the United States needed to get on with the destruction of the old, obsolete and, in some cases, unsafe agent stockpile.

As a result of that report, Congress, in 1986, directed the Defense Department to dispose of our unitary chemical weapons stockpile by September of 1994. This deadline has been extended twice to accommodate technical and national security considerations until finally, the 1993 Defense Authorization Act extended the destruction schedule, the unilateral U.S. destruction schedule, to December 31, 2004. This endpoint is essentially identical to the 10 year destruction deadline called for by the Convention, assuming it entered into force at its earliest possible date, the beginning of 1995.

In sum, the most difficult task, destroying the old unitary stocks, would be the same with or without the Chemical Weapons Convention. With the Convention, we gain important, affirmative benefits in controlling chemical weapons.

The next question is can we destroy the stockpile safely? Dr. Smith will address this issue in detail in his statement. The basic judgment, shared by the Army and by a recent review by the National Research Council, is that the risks of delaying destruction of an aging stockpile by incineration—which is the method that we now plan to use—the risks of delaying the destruction are considerably greater than the advantages that might possibly be gained by waiting for other technologies to be proven and made practically available.

In short, it is the view of the Department of Defense that, with the support of Congress for the necessary funding and technology, we will be able safely to destroy all of the chemical weapons materiel covered by the Convention within the treaty-mandated time limits.

Fourth, is the treaty verifiable?

Mr. Chairman, you will remember many discussions of this issue in many contexts. No treaty is 100 percent verifiable. But the Chemical Weapons Convention is effectively verifiable. It contains the most intrusive verification provisions of any arms control regime. That regime consist of detailed declarations, routine inspections of declared sites and, most importantly, short notice challenge inspections.

With its complementary and overlapping verification requirements, the Convention's regime provides the means to help deter a state party from violating the provisions of the Convention and to confirm compliance.

We are confident that activities, such as the destruction of declared chemical weapons stocks and production facilities, can be verified.

Detecting illicit production of small quantities of chemical weapons will admittedly be extremely difficult, not least because of substantial overlap in the technology for producing chemical weapons and the technology for producing many industrial chemicals.

However, we are confident that we would be able to detect large-scale production, filling, and stockpiling of chemical weapons.

On balance, the Convention presents us with the most comprehensive procedures available for confirming or alleviating compliance concerns. Over time, through its regime, the Convention should prove reasonably effective. When we combine information gained under the Convention with our own assessments, we will be able to make sound judgments in determining a party's compliance.

When we combine with that the deterrence provided by the Chemical Weapons Convention regime with our military preparedness, including both our protective measures and our capacity for nonchemical retaliation, we believe we have an effective approach for combating chemical weapons proliferation.

The fifth question is can we protect the privacy of our people and businesses and our national security information and industrial technology from compromise through the Chemical Weapons Convention verification system? In devising the Convention, the intrusiveness of many of the verification provisions had to be balanced against legitimate national security and constitutional concerns. The transparency called for in the declaration and verification re-

gimes had to be balanced with the need to protect national security information.

In the Department of Defense's view, the balance between effective verification of the Convention and the protection of national security and privacy concerns has been achieved.

Under the Convention, safeguards are provided against frivolous or contrived inspection demands. Once an inspection is approved by the Chemical Weapons Convention organization, an inspection team must strictly observe its inspection mandate.

These protections apply particularly to challenge inspections. Under a challenge inspection, a state is allowed a period of time up to 120 hours until it must provide access to the requested inspection site. During this time, the inspected state and the inspection team negotiate the nature and extent of access within the inspection site.

Finally, the inspected state has, as stated explicitly in the Convention, "the right under managed access"—it sounds like managed care for health care; "managed access" is the jargon for the method by which inspections will be conducted—it has the right to take such measures as are necessary to protect national security. Such measures could include, but are not limited to, shrouding sensitive equipment, removing sensitive papers from the area, or restricting sample analysis.

The inspected state may also take into account any constitutional obligations it may have with regard to proprietary rights or searches and seizures.

These powerful protections are balanced with the obligation not to use them to evade compliance. Accordingly, if a state provides less than full access, it must make every reasonable effort to provide alternative means to clarify the noncompliance concern.

Industry was closely involved in developing plans for compliance and, based on the Department of Defense's experience, we believe the risk of industrial espionage, invasion of legitimate privacy expectations, or compromise of national security information through the inspection regime is small.

Sixth, what will the Department of Defense do to protect our troops in the event chemical weapons are used against them?

The short answer is that we will maintain a robust chemical defense capability supported by aggressive intelligence collection efforts. Dr. Smith will describe those programs in some detail. For my purposes, suffice it to say that the right to maintain these defensive actions is clearly recognized in the Convention, and nothing in the treaty restricts our activities in this regard.

Finally, what about the use of riot control agents for legitimate purposes?

Consistent with longstanding U.S. positions, the Convention does not treat riot control agents—things like tear gas—as chemical weapons. The drafters of the treaty explicitly recognized that riot control agents are not chemical weapons. However, they judged that these chemicals warranted some consideration under the Convention.

They are allowed for use in law enforcement and domestic riot control. The Convention does, however, prohibit the use of riot control agents as a "method of warfare."

The administration understands that this provision applies only to their use as a method of warfare in international and internal armed conflict. Use of riot control agents for operations such as normal peacekeeping, humanitarian and disaster relief operations, and counterterrorism and hostage rescue outside of warfare contexts, are unaffected by the Convention.

Neither the Convention nor the formal negotiating method define method of warfare. Use of RCA's in war for U.S. forces is currently guided by Executive Order 11850. This order lists four illustrative situations in which RCA's could be used, including those involving rioting prisoners of war, situations where civilians are being used to screen attacks and civilian casualties can be reduced or avoided by the use of RCA's, rescue missions in remotely isolated areas of downed air crews and passengers and escaping prisoners, and, finally, rear echelon areas outside the zone of immediate combat to protect convoys from civil disturbances, terrorists, and paramilitary organizations.

How, if at all, the Convention's prohibitions on RCA use as a method of warfare affects the provisions of Executive Order 11850, the matter is still under review within the administration.

In conclusion, the Department of Defense considers the Chemical Weapons Convention a well balanced treaty that, in conjunction with our other efforts against chemical weapons proliferation, a robust chemical defense program and maintenance of a range of nonchemical retaliatory capabilities, will serve the best interests of the United States and the world community. Thank you.

[The prepared statement of Dr. Slocombe follows:]

PREPARED STATEMENT OF WALTER B. SLOCOMBE

INTRODUCTION

Mr. Chairman: We are here today on behalf of the Department of Defense to testify before you and the Committee on Foreign Relations in order to seek from the United States Senate its advice and consent to ratification of the Chemical Weapons Convention (CWC). It is the strong desire of the Administration that this treaty with its prohibitions on chemical weapons enter into force at its earliest possible date of January 13, 1995.

Since the conclusion of the First World War, the United States has continually sought prohibitions and controls on chemical weapons. Through our participation and leadership in this arms control process, the United States, over time, has gradually been able to reduce its reliance on chemical weapons as a deterrent and pursue a comprehensive ban on chemical weapons.

The Geneva Protocol of 1925, which we ratified in January of 1975, was the first broadly recognized treaty to prohibit the use of chemical weapons in war. However, the Protocol did not provide for verification and did not prohibit the production or stockpiling of these weapons, and reservations, made by many states including the United States, continued to allow retaliatory use of CW. The Geneva Protocol and our reservation to it have formed the basis for our policy of—"no first use of CW but reserving the right of retaliation in kind should they be used against us."

In April of 1984, Vice President Bush presented a comprehensive draft chemical weapons treaty to the Conference on Disarmament in Geneva. Our evolving military capabilities and a desire to reduce the massive CW stockpile of the Soviet Union made support of this treaty possible from a military standpoint. In June 1990, to help stimulate the multilateral CWC negotiations, DoD supported the conclusion of the Bilateral Destruction and Non-Production Agreement (BDA) with the former USSR. The BDA fell short of completely banning the possession of chemical weapons. It allowed both sides to retain 500 tons of CW from the end of the eighth year after entry into force of the multilateral Convention. Participants in the concurrent multilateral negotiations objected to the retention of this retaliatory capability.

In May of 1991, the United States re-energized the negotiations on the CWC when it announced, " * * To demonstrate the United States commitment to banning chemical weapons, we are formally forswearing the use of chemical weapons for any reason, including retaliation, against any state, effective when the Convention enters into force, and will propose that all states follow suit. Further, the United States unconditionally commits itself to the destruction of all our stocks of chemical weapons within ten years of entry into force * * *"

This U.S. initiative was the driving force that led to the conclusion of the Convention.

The CWC is not only an arms control treaty, it is also a nonproliferation regime. Through its prohibitions and trade restrictions, the Convention will help to defuse regional instability by reducing all States' abilities to acquire chemical weapons; by requiring the destruction of existing chemical weapons; and, by making States Party's activities transparent through declarations and intrusive monitoring procedures.

157 countries have already signed the CWC. The international consensus created by this large number of signatories will serve to highlight and isolate those countries which haven't yet signed. This international norm, created by the CWC, will enable the international community to apply political pressure on any State Party that violates or is not in compliance with its obligations under the Convention. This pressure could include recommendations to the United Nations for sanctions against such a party.

It is important to note that three quarters of the countries believed to have chemical weapons programs have signed the Chemical Weapons Convention. The remaining quarter have isolated themselves. Should they remain outside the Convention after it enters into force, they will be subject to the trade restrictions on specific chemicals under the CWC.

From earlier hearings and documents available, this Committee is well aware of the key features of the CWC. Rather than repeat those here, I will deal with several matters of direct concern to DoD. These include: our retaliatory capability; chemical weapons destruction; verifiability; protection of national security information; the status of our chemical defense program; and the use of riot control agents.

RETALIATORY CAPABILITY

First, how, having renounced CW, even as a means of retaliation, will we deal with the risk that a non-party, or a violator, might use CW against us? The Department of Defense, even though we recognize that the CWC may not be universal or universally complied with, believes that the ability to retaliate with CW is no longer a necessary element in countering chemical weapons. Two successive Administrations have concluded that U.S. national security is better served by concluding a comprehensive ban than by retaining a small retaliatory capability.

Fundamentally, DoD supports giving up the ability to retaliate with CW because we have an effective range of alternative retaliatory capabilities. Our protective capabilities have been improved, partly as a result of the Gulf War experiences. But we would not rely on protection alone. For obvious reasons, we do not choose to specify in detail what responses we would make to a chemical attack. However, as we stated during the Gulf War, if any country were foolish enough to use chemical weapons against the United States the response will be "absolutely overwhelming" and "devastating." We do not need chemical weapons to deliver an effective response to CW.

Adhering to a complete ban allows us to pursue, with strong international backing, our long-held goal of a complete ban, and eventually it saves us the costs and controversy that were associated increasingly with maintaining a chemical stockpile for retaliation. I will describe more fully our protective program later in this statement.

CHEMICAL WEAPONS DESTRUCTION

Second, will we have to spend a lot of money to destroy stocks? Under the CWC, the U.S. would be required to destroy its existing stocks of CW. This will be a complex and costly process. It is worth pointing out that the U.S. has already assumed voluntarily the overwhelming majority of this obligation.

In June of 1985, the Chemical Warfare Review Commission, which was established by Congress, reported that " * * only a small fraction of the total stock of chemical agent is in a munition form that has the characteristics suitable for employment on a modern battlefield." This Commission also recommended " * * an accelerated program to destroy in an environmentally safe way the existing stockpile of obsolete chemical weapons * * *". The Commission endorsed the proposed binary chemical modernization program. Many believe that the U.S. decision to build

binary chemical weapons was a key factor in influencing the Soviet Union to negotiate seriously on both the bilateral and multilateral CW agreements.

Having stopped the production of unitary CW agents and munitions in 1969, our unitary stockpile became increasingly old, obsolete, and in some cases unsafe. In fact, as a result of the 1985 Commission's Report, Congress directed the Defense Department in the Defense Authorization Act of 1986 (Public Law 99-145) to dispose of the unitary CW stockpile by September 30, 1994. This deadline was extended twice to accommodate technical and national security considerations until finally the 1993 Defense Authorization Act (Public Law 102-484) extended the destruction schedule to December 31, 2004. This endpoint is nearly identical to the 10 year destruction deadline called for by the Chemical Weapons Convention, assuming entry into force at its earliest possible date of January 13, 1995.

In sum, the most difficult task—destroying the old unitary stocks—would be the same with or without the CWC. But, with the CWC, we gain important affirmative benefits in controlling CW.

Third, can we destroy the stockpile safely? The same Act that set the current deadline directed the Secretary of the Army to submit a report to Congress "setting forth the Army's plans for destroying all chemical warfare material of the United States" that would be required to be destroyed under the CWC. Other chemical warfare materiel would include: binary chemical munitions; buried chemical munitions, if excavated and determined to meet the CWC definition; recovered chemical weapons from test ranges; unfilled chemical munitions and devices; and, chemical weapons production facilities. The Army provided this report on Non-Stockpile Chemical Materiel to the Congress in November of 1993.

Under Congressional direction, the CW destruction program—which would be accomplished by incineration in specially designed facilities at current CW storage sites—was delayed until the Army reported to Congress on their consideration of the National Research Council's recommendations on alternative technologies for the destruction of chemical weapons. On April 12, 1994, the Army provided its report to Congress. Mr. Walker, the Assistant Secretary of the Army for Installations, Logistics and Environment, testified on the Chemical Demilitarization Program on April 26, 1994, before a subcommittee of the Senate Armed Services Committee.

The Army has reviewed and considered each of the National Research Council's findings and recommendations. The Army concurs with the NRC that the baseline incineration destruction process is safe and effective and should proceed expeditiously. We also agree with the NRC that the risks from continued storage of the stockpile outweigh the potential risks from incineration.

Of the four alternative technologies recommended for further research by the NRC the Army plans to conduct research into two of them—stand-alone neutralization and neutralization followed by biological treatment. These processes are fundamentally different from the other destruction technologies and incineration, in that they operate at low temperature and low pressure. As you know, it was public concern over the safety of incineration that initiated the search for an alternative destruction technology. The Army is also incorporating many of the NRC's other findings into their program in order to make it even more safe and cost-effective.

The basic judgment—shared by the Army and the NRC—is that the risks of delaying destruction of an aging stockpile by incineration—are greatly less than the advantages that might possibly be gained by waiting for other technologies to be proven and made practically available.

It is the view of the Defense Department that with the help of Congress, we will be able safely to destroy all the chemical weapons materiel covered by the Chemical Weapons Convention within the treaty mandated time limits of ten years.

VERIFIABILITY

Fourth, is the treaty verifiable? While no treaty is 100% verifiable, the CWC is effectively verifiable. The CWC contains the most intrusive verification provisions of any arms control regime. The CWC's regime consists of detailed declarations, routine inspections of declared sites and short notice challenge inspections. With its complementary and overlapping verification requirements, the CWC's regime provides the means to help deter a State Party from violating the provisions of the Convention. We are confident that activities such as the destruction of declared CW stocks and production facilities can be verified. Detecting illicit production of small quantities of CW will be extremely difficult. However, we are confident that we will be able to detect large scale production, filing and stockpiling of chemical weapons.

On balance, the CWC presents us with the most comprehensive procedures available for confirming or alleviating any compliance concerns we might have. Over time, through its declaration, routine inspection, fact finding, consultation, and chal-

lenge inspection mechanisms, the CWC's verification regime should prove reasonably effective. When we combine information gained under the CWC with our own assessments, we will be able to make sound judgments in determining a State Party's compliance. When we combine the deterrence provided by the CWC regime with our military preparedness, we have an effective approach for combating CW proliferation.

PROTECTING NATIONAL SECURITY INFORMATION

Fifth, can we protect the privacy of our people and businesses, and our national security information and industrial technology, from compromise through the CWC's verification system? Within the Convention, the intrusiveness of many of the verification provisions had to be balanced against legitimate national security, and Constitutional concerns. Also, the transparency called for in the declaration and verification regimes had to be balanced with the need to protect national security information. In DoD's view, the balance between effective verification of the Convention and the protection of DoD's national security concerns has been achieved.

Safeguards are provided against frivolous or contrived inspection demands. Once an inspection is approved by the CWC organization, an inspection team must strictly observe its inspection mandate. The team is not allowed to collect or retain information that is not related or relevant to the object and purpose of the Convention. Many of the declared facilities that are subject to routine inspection will negotiate facility agreements. Consistent with the CWC, these agreements will address in detail the degree of access, the scope of information provided and any sample taking or monitoring that is to be conducted at the particular facilities.

These protections apply particularly to challenge inspections. Under a challenge inspection, a State is allowed up to 120 hours from the time it is notified of an inspection until it must provide access to the requested inspection site. During this time, the inspected state and inspection team negotiate the nature and extent of access within the inspection site. The inspected State also, as stated in the Convention, " * * * has the right under managed access to take such measures as are necessary to protect national security." Such measures could include but are not limited to shrouding, removing sensitive papers from the area, or restricting sample analysis. The inspected State may also take into account, "any constitutional obligations it may have with regard to proprietary rights or searches and seizures." These powerful protections are balanced with the obligation not to use them to evade compliance. Accordingly, if a State provides less than full access it must " * * * make every reasonable effort to provide alternative means to clarify the possible non-compliance concern * * * "

Industry was closely involved in developing plans for compliance and, based on DoD's experience, we believe the risk of industrial espionage, invasion of privacy expectations, and compromise of national security information is very small.

CHEMICAL DEFENSE PROGRAM

Sixth, what will DoD do to protect our troops? The Department of Defense will maintain a robust chemical defense capability supported by aggressive intelligence collection efforts. This commitment to protecting our forces combined with an ability rapidly to bring to bear the overwhelming power of our military capabilities will form the backbone of military deterrence against any aggressor in the post CWC world.

The treaty recognizes the need for States Party to the Convention to continue with chemical weapons defensive programs. This right is clearly and unambiguously provided in Article X of the Convention—which states, "Nothing in this Convention shall be interpreted as impeding the right of any State Party to conduct research into, develop, produce, acquire, transfer or use means of protection against chemical weapons, for purposes not prohibited under this Convention." Also Article II includes in its definitions of purposes not prohibited—purposes for the protection against chemical weapons. The Convention also subjects these programs to monitoring and verification which helps ensure that such activities cannot be used to hide offensive programs. To ensure that our soldiers, sailors, airmen and marines are the best protected and best equipped fighting force for operations on a nuclear, chemical or biological (NBC) battlefield, we have, with the support of Congress, developed a centralized management process that serves to coordinate the Services requirements in these areas.

Our NBC defensive programs will continue in accordance with the provisions of the treaty and we will continue to provide our forces the best protection available. In fact, we are in the process of preparing the Annual Report to Congress on the

DoD NBC Defense Program and this report will be forthcoming soon. Nothing in the treaty restricts our activities in this regard.

RIOT CONTROL AGENTS

Finally, what about the use of riot control agents for legitimate purposes? Consistent with long-standing U.S. positions, the CWC does not treat riot control agents as chemical weapons. The drafters of the treaty recognized that RCAs are not chemical weapons; however, they judged that these chemicals warranted special consideration within the Convention. RCAs are allowed for use in law enforcement and domestic riot control. The Convention does however prohibit the use of riot control agents (RCAs) as a method of warfare. The Administration understands that this prohibition applies only to their use as a method of warfare in international and internal armed conflict. Use of RCAs for operations such as normal peacekeeping operations, humanitarian and disaster relief missions, and counter-terrorism and hostage rescue are unaffected by the CWC.

Neither the CWC nor the formal negotiating record define "method of warfare." Use of RCAs, in war, for U.S. Forces is currently guided by Executive Order 11850. This order lists four illustrative situations in which RCAs could be used including those involving rioting prisoners of war; where civilians are used to screen attacks and civilian casualties can be reduced or avoided; rescue missions in remotely isolated areas, of downed aircrews and passengers, and escaping prisoners; and, rear echelon areas outside the zone of immediate combat to protect convoys from civil disturbances, terrorists and paramilitary organizations.

How, if at all, the Convention's prohibition on RCA use as a method of warfare affects Executive Order 11850 is a matter still under review within the Administration.

CONCLUSION

In conclusion, the Department of Defense considers the Chemical Weapons Convention a well balanced treaty that, in conjunction with our other efforts against CW proliferation, a robust chemical defense program and maintenance of a range of non-chemical response capabilities, will serve the best interests of the United States and the world community.

The CHAIRMAN. Thank you very much, indeed.

Now we will turn to Dr. Smith for his statement. I would add that if you want any addendum to your statement or if you wish the whole statement inserted in the record as if read, that can be complied with, too.

Mr. SLOCOMBE. Mr. Chairman, that reminds me. I skipped some part of my statement in the interest of time, and if my whole statement could be included in the record, I would appreciate it.

The CHAIRMAN. Your statement will be included as written. Dr. Smith.

STATEMENT OF DR. HAROLD P. SMITH, JR., ASSISTANT TO THE SECRETARY OF DEFENSE FOR ATOMIC ENERGY, DEPARTMENT OF DEFENSE

Dr. SMITH. Mr. Chairman, I would like to take advantage of your offer and submit my written testimony for the record. I would comment briefly right now.

The CHAIRMAN. All right. Thank you.

Mr. SMITH. It is my hope that the U.S. Senate will vote in favor of ratification in time for the United States to be able to deposit its instruments of ratification on July 17, 1994.

Entry into force of the Convention will occur 180 days after 65 Nations submit their instruments of ratification but no earlier than 2 years after the Chemical Weapons Convention [CWC] has been open for signature.

This explains why the date of July 17 is important. That will put us 180 days away from the 2 year point, the earliest date that the CWC can enter into force.

Prompt U.S. ratification ensures that the United States will be at the forefront in supporting the CWC as an original state party. It will also encourage the rest of the world to get on board and to ensure that the CWC is successful.

Within the Department of Defense, it will be my responsibility to oversee implementation of the CWC, as well as the related bilateral CW agreements and to ensure that DOD activities comply fully with their provisions.

We are greatly assisted in meeting these obligations by the On-Site Inspection Agency, sometimes referred to as OSIA, which will conduct bilateral CW inspections in Russia, as well as perform escort functions for inspections here in the United States. The Defense Nuclear Agency, or DNA, also is an invaluable asset, providing the underpinnings for research, development, and procurement of resources to support the arms control effort. DNA also reports to my office.

The proposed DOD budget for arms control activity in fiscal year 1995 is about \$270 million, of which \$81 million is planned for support of the CWC and related bilateral agreements.

DOD has carefully studied the verification regimes of the CWC, and we are convinced that using the protections of the U.S. developed "managed access" approach to guide inspection activity, we can effectively protect national security information unrelated to the Convention.

Further, we are convinced that confidential business information and constitutional rights to privacy will not be jeopardized by the treaty provisions.

The On-Site Inspection Agency has gained a wealth of experience in the implementation of other treaties. For CWC inspections of DOD and DOD contract facilities, OSIA will provide teams of experts to escort the international inspection teams for the duration of their stay on U.S. territory. If needed, this escort function can be performed for other U.S. facilities as well.

OSIA will ensure that the inspections are conducted by the book and that sensitive information, unrelated to the purposes of the CWC inspection, is not inadvertently disclosed.

Important decisions, such as perimeter determination and access negotiation where national security is at stake will be made by the national authority. The exact mechanism for the national authority decisionmaking function is still being developed. Day-to-day functioning of the Office of National Authority, such as routine coordination and administrative chores, will be the responsibility of the Arms Control and Disarmament Agency, or ACDA. Mr. Holum has already appeared before this committee.

DOD is actively participating in the CWC Preparatory Commission, the so-called PrepCom, in the Hague, where procedures for the implementation of the CWC are being developed. We have provided technical experts and research data to assist in working group discussions at the PrepCom over the past 15 months. We will continue to support the U.S. delegation as required through entry into force of the CWC and beyond.

As you know, we are actively destroying our chemical weapons [CW] stockpile. We are confident that we can complete the destruction within the 10-year timeline of the CWC. The National Research Council [NRC] of the National Academy of Sciences has recently concluded that the baseline incineration technology we plan to employ is safe and effective for the destruction of our CW stockpile. They also concluded that continued delay, as noted by Mr. Slocombe, in straying our CW is more dangerous than getting on with the destruction program.

As recommended by the NRC, the Army will pursue research and development on alternative destruction technologies. This work will proceed simultaneously with stockpile destruction, using the baseline incineration method. We plan to spend \$827 million in support of the U.S. CW demilitarization effort during fiscal year 1995.

Further, we are seeking ways to assist the Russians in the destruction of their CW stockpile through the Cooperative Threat Reduction [CTR] Program, using Nunn-Lugar funds. To date, we have identified \$55 million for this purpose.

Recently, we have been successful in gaining Russian agreement to use an experienced U.S. contractor, who will make available the results of the lessons learned within our own extensive CW demilitarization program, and will help develop a comprehensive plan for Russian CW destruction.

If this effort proceeds as we anticipate, we expect to request your support in providing similar American contractors to assist the Russians in building a plant to destroy their most insidious CW, the chemical weapons of greatest concern to our war fighters, those munitions filled with nerve gas and employed by sophisticated aerial delivery systems.

If the Russians decide to use the same destruction technology we do and, thereby, benefit from our research, development, test, evaluation, and pilot plan operation, then they could be well underway with destroying their CW stockpile. Like the United States, Russia is a signatory to the CWC. Their Duma, or lower house of parliament, is now considering the CWC for ratification.

Even with pending entry into force of the CWC and despite the intention of the two declared CW possessors to destroy their stockpiles, the possibility still exists that certain rogue states could endeavor to defy global norms and develop CW programs. To guard against this effort, DOD will continue to develop its chemical/biological defense program, for which we have requested \$506 million in our fiscal year 1995 budget. This is far less than 1 percent of the overall DOD budget and is a very inexpensive way to ensure that American military forces will continue to be the best prepared and equipped in the world to deal with war fighting in a CW environment.

In closing, Mr. Chairman, let me reiterate that we in DOD consider the CWC to be an historic treaty, one that the U.S. Government should fully and aggressively support. We hope that you will consider it for advice and consent to ratification in time for the United States to deposit its instrument of ratification by July 17 of this year.

I hope that my comments have set the stage for a meaningful exchange of questions and answers as we explore implementation of this historic treaty.

I will be pleased to respond to any questions you may have. Thank you, Mr. Chairman.

[The prepared statement of Dr. Smith follows:]

PREPARED STATEMENT OF HAROLD P. SMITH, JR.

INTRODUCTION

Mr. Chairman, members of the Committee, I welcome this opportunity to urge your support for the Chemical Weapons Convention (CWC) as you consider its national security implications. It will be my responsibility to serve as the Department of Defense (DoD) Treaty Manager for the CWC during and following its implementation and to ensure that the DoD complies fully with its provisions. We in the DoD fully support the CWC and we encourage your advice and consent to ratification in time for the United States to be able to deposit its instruments of ratification by July 17, 1994. Like the President, the Department is committed to the earliest possible entry into force of the Convention—January 13, 1995. In order for that to happen, 65 nations must ratify the Convention 180 days prior to that date, hence the importance of July 17, 1994.

As Ambassador Ledogar has already shared with you, the CWC was negotiated painstakingly over a period of 24 years. It has now been signed by 157 nations and ratified by five. A number of others are in the midst of their ratification process or are nearing ratification. It is my view that many countries are closely watching the actions of the United States and will ratify as soon as they are convinced that we are serious about the July 17 deadline.

VERIFICATION

The CWC is not the first treaty which has attempted to control chemical weapons. It is, however, the most comprehensive ban on a weapon of mass destruction to date and includes an effective verification regime—the most intrusive of any existing bilateral or multilateral accord.

The absence of means of credible verification has rendered other treaties relatively ineffective. The CWC, by comparison, has incorporated a rigorous inspection regime supported by a broad range of declarations. The CWC's verification provisions will help give us confidence that violations are not occurring. These verification provisions, however, are effectively balanced by certain safeguards and we consider that the treaty strikes the proper balance between intrusiveness and the protection of privacy, proprietary information, and national security.

The CWC includes requirements for all States Parties to declare chemical weapons stockpiles, development facilities, former production facilities, and plans for destruction of chemical weapons and production facilities, as well as ongoing activities related to certain dual use chemicals of concern. These declarations will provide the basis for routine inspections by international inspection teams of the CWC organization. The CWC also provides for short-notice challenge inspections of any location or facility, declared or not, in cases where there may be some question or concern about treaty compliance.

PROTECTIONS

It is quite possible that Department of Defense facilities, both government sites and civilian plants with DoD contracts, could be challenged under the CWC. In such cases, we have the ability to inform those sites quickly and to prepare them properly for inspection through the Defense Treaty Inspection Readiness Program (DTIRP), which is managed by the On-Site Inspection Agency (OSIA).

Escort teams provided by OSIA will accompany the international CWC inspection teams to DoD-related facilities for the duration of their stay on U.S. territory. OSIA personnel have experience from other treaties and the agency is fully staffed with linguists and treaty experts who will ensure that officials from the inspected DoD facility are fully cognizant of the rights and obligations mandated by the CWC.

In the event of a challenge inspection, we feel that the provisions for negotiated or "managed access," which have been crafted into the CWC by our negotiators will enable our inspected facilities to satisfy any concerns about treaty compliance while simultaneously ensuring that our national security is not jeopardized or compromised in any way. Managed access will give officials at the challenged site the right to offer reasonable alternatives to full access and to negotiate levels of access

in areas which may contain classified or proprietary information not related to the CWC.

NATIONAL AUTHORITY

The CWC requires that each State Party, in accordance with its constitution processes, adopt the necessary measures to implement its obligations under the CWC. Further, each State Party must establish a National Authority to serve as a focal point for liaison with the OPCW and other States Parties to the CWC. The U.S. is in the process of developing the structure of its National Authority.

The DoD will be the lead agency for matters concerning implementation and compliance with the CWC when the equities of DoD and DoD-contract activities are at stake. We will be on hand during challenge inspections of these facilities to ensure that facility equities are represented and that officials on site are fully aware of available protections afforded them, as well as their obligations under the CWC.

Day-to-day operation of the Office of the National Authority will be the responsibility of the Arms Control and Disarmament Agency (ACDA). We in the DoD will be fully supportive of ACDA in this role and we will be working closely with our ACDA counterparts to ensure that the Office of the National Authority meets the needs of the U.S. Government and the U.S. commercial industry during implementation of the CWC.

SUPPORT TO THE INTERNATIONAL CWC ORGANIZATION

The Department of Defense continues to participate actively at the CWC Preparatory Commission (PrepCom) in The Hague. Procedures are being developed at the PrepCom for implementing the CWC and establishing the Organization for the Prohibition of Chemical Weapons (OPCW), which will oversee implementation and administration of the CWC. Upon entry into force of the CWC, and after the first meeting of the Conference of States Parties, the PrepCom will cease to exist and the OPCW will become the official international CWC organization.

We have offered our expertise and resources to the CWC PrepCom in support of the training of inspectors who will verify the CWC. The Defense Nuclear Agency, the On-Site Inspection Agency, and the Army Chemical School at Fort McClellan, Alabama, have developed a comprehensive program of instruction for this training and have already conducted two pilot courses to confirm its adequacy. After implementation of the CWC, it is possible that no fewer than one-quarter of the international inspectorate serving the OPCW will have been trained and certified at DoD facilities in the United States.

NONPROLIFERATION

Proliferation of weapons of mass destruction is a global concern. President Clinton has directed our efforts in support of nonproliferation to ensure that we take the proper actions to deter this worldwide trend. We in the Department of Defense are at the cutting edge of such actions and we see the CWC, which bans a whole class of weapons of mass destruction, as a valuable tool to support our nonproliferation efforts.

The CWC effectively establishes an international consensus on the prohibition of all but defensive activity relating to chemical weapons, not merely the use of such weapons. Of course, we cannot overlook the possibility that certain rogue nations may make a conscious decision to violate the CWC, but the worldwide reaction to such action, when detected, will be immediate and uniformly negative. Intense diplomatic pressure will be brought to bear and violators will be politically isolated.

The CWC includes restrictions on State Party trade with non States Parties on certain chemicals of concern. The treaty further enables the international organization, the OPCW, to recommend measures in response to violations of its provisions. In cases of particular gravity, the situation must be brought to the attention of the United Nations General Assembly and Security Council. Nations victimized or intimidated by the use or threat of use of chemical weapons can gain assistance and protection through the CWC.

CHEMICAL WEAPONS DESTRUCTION

As you know, we are now in the process of destroying our chemical weapons stockpile. The program for destruction of our chemical weapons stockpile, which is budgeted for about \$847 million in FY95, builds upon programs that the Congress has supported in the past. Our prototype facility at Johnston Atoll is now fully operational and our first stateside destruction plant, at Tooele Army Depot in Utah, is now complete and will go on line next spring. Other destruction facilities will follow

at the seven remaining stateside sites where the US chemical weapons stockpile is stored.

The recent report of the National Research Council of the National Academy of Sciences concludes that the baseline destruction process, which incorporates our baseline incineration technology, is a safe and effective disposal process for the chemical weapons stockpile, and that destruction using this technology is safer than continued long-term storage. Further, the continued delay of destruction while other processes are explored could increase life cycle costs, the time required to destroy the stockpile, and total risk associated with chemical weapons disposal. Risk increases over time as stockpile deterioration will inevitably progress and the weapons will become more dangerous to store or to destroy. Our present program can ensure environmentally safe destruction within the 10-year timeline of the CWC. However, we need continued Congressional support for funding for CW destruction and for legislation which supports our overall program.

Even without the CWC, the United States would destroy its chemical weapons stockpile, in a safe and environmentally sound manner by December 2004, which is within the timeframe specified by the treaty. The value of the CWC, however, is that it will obligate other countries to do the same thing.

RUSSIAN RATIFICATION OF THE CHEMICAL WEAPONS CONVENTION

We are encouraged by the fact that the Russians have now submitted the CWC to their Duma, or lower house of legislators, to begin their process of consideration for ratification. We are hopeful that the Russian Federation will ratify the CWC in ample time to be an original party to the treaty upon its entry into force.

CHEMICAL BIOLOGICAL DEFENSE

With regard to protection of our military forces against the possibility of chemical weapons use, you may rest assured that the Department of Defense Chemical Biological Defense Program will not be diminished in any way by entry into force of the CWC. In response to the National Defense Authorization Act for 1994, Public Law 103-160, significant management initiatives are now underway to provide improved oversight over Joint Service execution of the Chemical Biological Defense Program. My office has the lead on these improvements.

The FY95 Chemical Biological Defense Program is strong, balanced, and integrated. It seeks to enable us to protect our forces under all conditions of deployment of chemical and biological weapons. Our FY95 budget request is for about \$506 million in this area, which is approximately one-fifth of 1 percent of the total defense budget. It represents a very inexpensive insurance policy for our forces, one that we are committed to maintaining, in the event that rogue nations choose to violate the CWC and employ chemical or biological weapons. American military forces will continue to be the best prepared and equipped in the world to deal with warfighting in a CW environment. On that you can depend.

We plan to devote considerable resources to the program over the next 5 years to ensure that our forces are provided adequate protection from any use of chemical or biological weapons in any regional battlefield scenario. In addition, we can deter the use of such weapons against our forces by our superior military capabilities. We no longer need to maintain chemical weapons for retaliation in order to deter their use against the forces of the United States or our allies.

Essential elements of the DoD Chemical Biological Defense Program will continue to be emphasized in our budget planning process. Elements of a strong defensive program include support of a robust technology base to explore the latest developments in this key area. Consistent with the provisions of the CWC, we will continue our emphasis on research, development, testing, and evaluation to provide our forces with improved chemical and biological defense equipment for detection, identification, and warning; individual and collective protection; and decontamination. In addition, we will ensure that adequate procurement funding is in place to provide our forces with the newest and the best chemical and biological defensive equipment available.

COSTS OF THE CHEMICAL WEAPONS CONVENTION

Implementing the CWC will not be easy, nor will it be cheap. In the Department of Defense, we expect to spend \$81 million during FY95 in preparing our facilities for implementation of the CWC and the related bilateral destruction agreement. Yet, we consider that this treaty is too important not to support fully and we are preparing to do exactly that. The overall DoD budget request for arms control funding in FY95 is about \$270 million, which is about \$35 million less than we requested in FY94.

CONCLUSION

Mr. Chairman, the Department of Defense considers the CWC to be an historic treaty. It has been carefully negotiated to enable an effective verification regime while ensuring the means for protection of our vital national security interests unrelated to the Convention. We consider that it contains the provisions to accomplish both these objectives.

The CWC must have the solid backing of the United States, however, if it is to gain global acceptance and credibility. The next step in the process is your recommendation for Senate advice and consent to ratification, which must occur soon for the US to become an original State Party to the CW in January 1995. Your timely action in this regard will set a strong example for the rest of the world to follow. I urge your support.

The CHAIRMAN. Thank you very much, Dr. Smith.

I now will turn to General McIlvoy for any comments he might have.

General McILVOY. Sir, I have no prepared comments this morning.

The CHAIRMAN. Very well.

Is there any opposition to the ratification of this treaty within the government as far as any of you knows?

Mr. SLOCOMBE. Not to my knowledge.

Mr. SMITH. Interesting enough, Mr. Chairman, the Chemical Manufacturers Association, which one might think would be against this treaty, supports it strongly.

The CHAIRMAN. Yes. And the Joint Chiefs of Staff share this support for ratification without reservation?

General McILVOY. Yes, sir.

The CHAIRMAN. In the Persian Gulf war, it was clear that Saddam Hussein's forces had the ability to attack us and our allies with chemical weapons. Does any of you think it might have been appropriate to retaliate for such action by using our own chemical weapons?

I would ask Mr. Slocombe that question.

Mr. SLOCOMBE. The position of the United States at that time was not to specify how we would retaliate but to make clear that it would be a very powerful and effective response. At that point it could, in principle, have included chemical weapons. We did not rule out that possibility. The Convention, of course, would rule out the possibility. It would not affect other means of retaliation.

It would certainly be appropriate to respond with overwhelming effectiveness in the event of such use. We will have the capacity to do that under the Convention.

The CHAIRMAN. Dr. Smith.

Mr. SMITH. Sir, I think we have ample means to retaliate without needing recourse to chemical weapons.

The CHAIRMAN. Could it be said that the Persian Gulf war demonstrated that the United States does not have a real need for chemical weapons? That statement has been made, I know.

Would you concur in that, Dr. Slocombe?

Mr. SLOCOMBE. I believe the United States does not have a need for chemical weapons or for retaliatory capability in the context of the Convention. Whether the Persian Gulf war decisively demonstrates that proposition or not, it is certainly consistent with it.

The CHAIRMAN. Can you envision any circumstance where it would be to our advantage to use chemical weapons?

Mr. SLOCOMBE. If it were purely a question of unilaterally giving up retaliation without any benefit in terms of restrictions on other countries, it would be a different matter. The point is that, by agreeing to give up the retaliatory right which we had previously reserved, the United States gains by the establishment of a very broad scale and very verifiable system for controlling other countries' chemical weapons.

Mr. SMITH. Mr. Chairman, I would like to respond on that part of the topic which is not retaliation but actually war-fighting ability.

I would defer to General McIlvoy, but I have gone out of my way to discuss this matter with warfighters in the United States and, I think of some importance, their counterparts in Russia. I find it interesting that the general officers who have to think through the tactics of using chemical weapons in the two remaining superpowers are quite willing to tell me, a civilian, that they see little to no military value in chemical weapons.

Mr. SLOCOMBE. If I could add one further point, maintenance of a modernized chemical weapon stockpile was an expensive and controversial player for the United States. It created problems domestically, it created problems with allied countries.

One of the important benefits of the shift to a control regime is that those problems will be eliminated.

The CHAIRMAN. How many tons of chemical weapons need to be destroyed? Do we have an approximation?

Mr. SLOCOMBE. I think I remember the number, but Dr. Smith will know it. So I will let him answer the question.

Mr. SMITH. A good number to keep in mind, Mr. Chairman, is approximately 30,000 tons on the American side and slightly more than that on the Russian side.

The CHAIRMAN. That's 30,000 tons.

Mr. SMITH. Yes, sir.

The CHAIRMAN. Wow. What would be the cost of destroying that?

Mr. SMITH. Our program is now budgeted at \$8.6 billion through the period that we are discussing here for the CWC. So in round numbers it's less than \$10 billion.

The CHAIRMAN. Can that be accomplished within the 10-year period that is in the treaty?

Mr. SMITH. Yes, sir. It can.

One can never predict the effects of obtaining permits, the effects of litigation, et cetera. But if the program proceeds on the path that it is now embarked thanks to the excellent report by the National Academy of Sciences, we can, indeed, meet the timetable for the CWC. It is technically well within our grasp. Our planning and budgeting is realistic. So I am confident that we can sign and ratify the treaty and meet the deadlines.

Mr. SLOCOMBE. Mr. Chairman, may I add on that point?

The CHAIRMAN. Certainly.

Mr. SLOCOMBE. I don't know about other people, but to me \$8.5 billion seems to be a lot of money. But the point is that the United States was committed to destroying the overwhelming bulk of the chemical stockpile even during the period when we were trying to retain a very limited retaliatory capability, so that that requirement would exist with or without the Convention.

Mr. SMITH. Mr. Chairman, could I also comment on the possibility of the Russians meeting the CWC deadline?

The CHAIRMAN. Yes, please.

Mr. SMITH. It is often said that they cannot and that, therefore, we should not. But, in fact, that overlooks the very obvious, but important, fact that if the Russians choose to use the technology which we will give them under the Nunn-Lugar program, they will have saved themselves the 15 years that we have put into research, development, test, evaluation, pilot plan operation, and construction of a production facility—"production" in this case meaning "destruction."

So there is a 15 year head-start that the Russians can have. We will give them, and, in fact, they are actively considering, the designs for incineration that we have for our plant. Our stockpile looks the most like theirs. Therefore, it would be wrong to assume that the Russians need 10 to 15 years to do what we have done during this past decade or so. They, in fact, could be well embarked on the road to incineration of their stockpile.

I do not say unequivocally that they can meet the deadline. But it is a far more optimistic, realistic situation than people may have thought.

The CHAIRMAN. Is there any possibility from the viewpoint of saving money of combining the destruction of some of the nuclear weapons with the chemical weapons?

Mr. SMITH. No, sir.

I do not think that one would want to mix the two. What works for destroying chemicals would not apply at all to the most insidious components of an atomic weapon.

The CHAIRMAN. Incineration would not work?

Mr. SMITH. Definitely not. It would be just the wrong thing to do.

The plutonium that would be burned would become plutonium oxide, which is as highly toxic as the plutonium itself.

The CHAIRMAN. How many destruction facilities would we have to build?

Mr. SMITH. We intend to build eight in the United States. The Russians intent to build seven. In both cases, that assumes there will be no significant transport of munitions or agents from one site to another.

We, the United States, are proscribed by law from even studying the possibility of transport and, therefore, I, and the Army, do not include transport in our plans at all. Hence the number "eight."

Whether or not the Russians will be so bound is not clear at this point. So they would need up to seven, but not necessarily seven itself.

The CHAIRMAN. But you cannot prevent the transportation of chemical weapons to go to the center for destruction. They has to be transported.

Mr. SMITH. We would encourage them to transport their weapons to a few incinerators, as opposed to building eight.

The CHAIRMAN. Right. But in our case, we will have eight?

Mr. SMITH. We will have eight.

The CHAIRMAN. But there will be some areas where the weapons will have to be transported say 100 miles or 1,000 miles, won't there?

Mr. SMITH. No, sir.

We intend to build the destruction plants immediately adjacent to the depots.

Mr. SLOCOMBE. In effect, the United States has decided to incur the cost of taking the destruction plant to each site where chemical weapons are stored, rather than to transport the chemical weapons to a centralized site.

The CHAIRMAN. And we only have eight depots, is that correct?

Mr. SMITH. That's correct.

The CHAIRMAN. The risk associated with incineration, is that great or is it bearable?

Mr. SMITH. I would say better than bearable. We monitor daily, continuously, the emissions from our pilot plant in Johnston Island, and the amount of toxic material that escapes from that stack is truly undetectable.

We have used the lessons learned at that pilot plant, as one should, and installed better equipment in Tooele, UT, which is our first full-scale destruction plant. There we are very confident that, as designed, there will be no significant release of toxic material.

Furthermore, the Army has been instructed and has agreed to implement a recommendation of the National Academy of Sciences, namely, to put what we call charcoal scrubbers or filters on those stacks at that plant and on the seven others which the Army will construct. That will be at a cost of almost a quarter billion dollars. But it will even further reduce any toxic emissions from our incineration plants.

I am really rather confident, sir, that there is no danger to the surrounding populace from the very modern incinerators that we intend to construct.

The CHAIRMAN. What other nations would be adhering to this treaty?

Mr. SLOCOMBE. There are 157.

The CHAIRMAN. Who have already signed on?

Mr. SLOCOMBE. Yes. I cannot swear there are not 158 by today. We would be happy to provide for the record a list of those countries which have signed on. The list I have is of April 7, 1994.

The CHAIRMAN. Of those who have signed on, how many have chemical weapons potential?

Mr. SLOCOMBE. That is an important point, sir. It is a very significant fraction. About three-quarters of the countries that have confirmed or suspect chemical weapons programs have signed on. There are significant exceptions. But it means that with respect to those countries with confirmed programs, we will get the benefit of the highly intrusive inspection regime in order to confirm the reversal of those programs.

The CHAIRMAN. I think it might be helpful if you could indicate by an asterisk or something of that sort on the list that you submit those that you believe have substantial chemical weapon potential.

Mr. SLOCOMBE. Yes. We can do that, but I cannot do it on an unclassified basis. However, we can certainly provide that information on a classified basis to the committee.

The CHAIRMAN. All right.

I have a couple of questions that should be answered for the record. I would add that, without objection, the record of this hear-

ing will stay open for 10 days for any additional questions or statements by any of my colleagues.

I would like to ask Mr. Slocombe this question. In 1974, our committee and the Senate approved the Geneva Protocol on the basis of an understanding with the then-Ford administration that the United States would renounce the "first use of riot control agents in war" except as a defensive military asset to save lives.

I was wondering if the administration is prepared to renounce any use of riot control agents in war except to save lives and not just for first-use?

Mr. SLOCOMBE. The Convention requires that riot control agents not be used as a "method of warfare, either in retaliation or in first use." So we would, under the Convention, of course be obligated to comply with that requirement.

The United States has sought to clarify what the term "method of warfare" means, and in the executive order to which I have referred, which was promulgated, if I remember correctly, shortly afterward, and anyway is consistent with that declaration, some examples were given of situation which we maintain would be permitted. We are examining whether the Convention and the provisions of Executive Order 11850 are consistent. We will be able to advise the committee hopefully in the context of responding to this question.

The CHAIRMAN. I think the 1975 order was designed to be very binding, very restrictive, as to the uses of riot control agents. Will our policy regarding limitation on uses of riot control agents remain as restrictive as it has been and should these restrictions apply?

Mr. SLOCOMBE. Well, the answer to that is yes. The question is whether the Convention is even more restrictive than 11850.

The CHAIRMAN. Which, in your view, is more restrictive?

Mr. SLOCOMBE. The administration has not reached a consensus on the answer to that question.

The CHAIRMAN. That sounds like the Senate.

Mr. SLOCOMBE. Excuse me?

The CHAIRMAN. That sounds like the Senate. [General laughter]

I think we have had a good hearing. There being no other questions from Senators present, as I said, we will leave the record open for 10 days.

Thank you very much, indeed, for your frankness and openness. The hearing is adjourned.

Mr. SLOCOMBE. Thank you,

Mr. SMITH. Thank you, Mr. Chairman.

General McILVOY. Thank you, sir.

[Whereupon, at 11:16 a.m., the committee adjourned, to reconvene at 10 a.m., May 17, 1994]



CHEMICAL WEAPONS CONVENTION (TREATY DOC. 103-21)

TUESDAY, MAY 17, 1994

U.S. SENATE,
COMMITTEE ON FOREIGN RELATIONS,
Washington, DC.

The committee met, pursuant to notice, at 10 a.m. in room S-116, the Capitol, Hon. Claiborne Pell (chairman of the committee) presiding.

Present: Senators Pell and Lugar.

The CHAIRMAN. The Committee on Foreign Relations will come to order.

Today we welcome representatives of the intelligence community who are here in Washington. This is the fourth hearing that we have conducted on the Chemical Weapons Convention, concluded in 1992 by the Bush administration, submitted to the Senate late last year by the Clinton administration for advice and consent.

Our first witness will be Maj. Gen. John Landry, National Intelligence Officer for General Purpose Forces of the National Intelligence Council.

He will be followed by Mr. John Lauder, Chief, Arms Control Intelligence staff for the Director of Central Intelligence.

Following him, Mr. Donald Mahley, Acting Assistant Director, Bureau of Multilateral Affairs, U.S. Arms Control and Disarmament Agency will discuss the overall verifiability of the treaty.

We will have a very brief opening session in this room to get some questions which can be unclassified and on the public record. Then we will scoot up to room S-407 of this same building for a hearing at the Top Secret/Code Word level.

I would imagine that, to get started, we would now ask General Landry for his statement.

STATEMENT OF MAJ. GEN. (RET.) JOHN LANDRY, USA, NATIONAL INTELLIGENCE OFFICER FOR GENERAL PURPOSE FORCES, NATIONAL INTELLIGENCE COUNCIL

General LANDRY. Mr. Chairman, I am very pleased to be here this afternoon.

Let me just note that I am a retired officer. I joined the National Intelligence Council in December and I retired on January 1.

Mr. Chairman, I am pleased to be here today to discuss with you two things. No. 1 is a review of the roles of the U.S. intelligence community in supporting the CWC negotiating process, and, once the Convention is ratified and implemented, our ability to monitor compliance of foreign nations with its requirements.

As with other arms control treaties, the intelligence community was deeply involved in the interagency deliberations that led to the birth of the CWC. The community supported the U.S. delegation to the negotiations and participated actively in the interagency coordination process. We provided assessments of our ability to monitor compliance with proposed treaty provisions before they were offered for negotiation. We also identified the counterintelligence implications of the treaty's provisions, especially on the issue of managed access provisions of challenge inspections.

The intelligence community participated in the article-by-article analysis of the CWC text before it was submitted to the Senate, and commented on the Section 37 Verification Report. In addition, the community prepared its own national intelligence estimate in August 1993 on its ability to monitor the CWC, a document whose findings we will review with you in greater detail a little bit later on this morning in closed session.

We continue to provide support to the U.S. delegation to the CWC's Preparatory Commission at The Hague by participating in drafting U.S. position papers, providing technical expertise—currently there are about 15 technical experts assigned to this function—and alerting the delegation to the efforts of some signatories to weaken the CWC by proposing ambiguous implementing provisions.

In addition, we periodically prepare and provide intelligence assessments on CWC issues, such as the progress signatory nations are making in securing legislative approvals. Likewise, we continue to monitor and report on ongoing developments in the proliferation of chemical weapons, materials, and technology, both by signatory and nonsignatory nations.

Mr. Chairman, for reasons of classification, which I think you clearly understand, I am going to have to reserve a more comprehensive statement about the intelligence community's capabilities to monitor compliance with the terms of the CWC to a later, closed session. I can say, however, that despite the strong verification regime embodied in the CWC Convention, the intelligence monitoring of this agreement will prove to be a very monumental task.

The tasks involved are very much the same as they have been for all strategic arms control treaties that have preceded the CWC—detecting prohibited activities, assessing data declarations, and monitoring the elimination and, where authorized, the conversion of weapons production and storage facilities, and the destructions of stockpiles.

What is different in this Convention, however, is the scope of the facilities to be monitored and the fact that chemical manufacturing and storage plants pursuing legitimate, commercial activities are not easily distinguished from those that produce chemical warfare agents.

Unlike the bilateral agreements on arms control that the United States reached with the Soviet Union in the 1970's and the 1980's, we are dealing in the CWC with not 1 party but with 150. Moreover, instead of the relatively limited number of nuclear weapons production, storage, and launch facilities that we were monitoring in the former Soviet Union, the CWC will require us to keep track

of a large number of chemical facilities in many different nations around the world.

In addition, because many of these facilities can produce both legitimate commercial and industrial products, as well as those used in chemical warfare, our current inventory of technical collectors, as well as human sources, will have a far more difficult job in detecting activities prohibited by the Convention. In brief, it is far easier to monitor the tools of nuclear warfare than those of chemical warfare.

That said, however, we believe and we judge that the transparency and verification provisions of the Convention will contribute to our ability to focus collection and analysis to detect and assess the most threatening CW programs.

Mr. Chairman, this concludes my opening statement. I will be pleased to take any questions that you or members of the committee might have.

[The prepared statement of General Landry follows:]

PREPARED STATEMENT OF GENERAL LANDRY

Mr. Chairman, I am pleased to come before the Senate Foreign Relations Committee today to talk about the ability of the Intelligence Community to monitor the Chemical Weapons Convention, or CWC.

You have recently heard testimony from Secretary Christopher, ACDA Director Holm, Ambassador Ledogar and others describing the scope and breadth of this Convention. These speakers have also described the compromises reached during the CWC negotiations in order to strike a balance between the need for effective verification and the need to protect both sensitive national security information and proprietary information of commercial chemical manufacturers in keeping with the privacy guarantees of the U.S. Constitution.

I will not attempt to improve upon their remarks and will confine my comments to a review of the roles of the U.S. Intelligence Community in supporting the CWC negotiation process and, when the Convention is ratified and implemented, our ability to monitor the compliance of foreign nations with its requirements.

As with other arms control treaties, the Intelligence Community was deeply involved in the interagency deliberations that lead to the birth of the CWC. The Community supported the U.S. delegation to the negotiations and participated actively in the interagency coordination process. We provided assessments of our ability to monitor compliance with proposed treaty provisions before they were offered for negotiation. We also identified the counterintelligence implications of treaty provisions, especially on the managed access provisions of challenge inspections.

The Intelligence Community participated in the article-by-article analysis of the CWC text before it was submitted to the Senate for your consideration and commented on the Section 37 Verification Report. In addition, the Community prepared its own National Intelligence Estimate on the Community's ability to monitor the CWC, a document whose findings we will review with you in detail in the Committee's closed hearing later today.

We continue to provide support to the U.S. Delegation to the CWC's Preparatory Commission at The Hague by participating in drafting U.S. position papers, providing technical expertise on chemical warfare issues, and alerting the delegation to the efforts of some signatories to weaken the CWC by proposing ambiguous implementing procedures. In addition, we periodically prepare intelligence assessments on CWC issues such as the progress signatory nations are making in securing legislative approvals. Likewise, we continue to monitor and report on-going developments in the proliferation of chemical weapons, materials, and technology by both signatory and non-signatory nations.

Mr. Chairman, for reasons of classification I must reserve a more comprehensive statement about the Intelligence Community's capabilities to monitor compliance with the terms of the CWC to the closed hearing you have scheduled for later today. I can say, however, that despite the strong verification regime embodied in the Chemical Weapons Convention, the intelligence monitoring of this agreement will prove to be a monumental task.

The tasks involved are much the same as they have been for all the strategic arms control treaties that have preceded the CWC, i.e., detecting prohibited activity,

analyzing data declarations, and monitoring the elimination, or conversion of weapons production and storage facilities, and the destruction of stockpiles. What is different with this Convention, however, is the scope of the facilities to be monitored and the fact that chemical manufacturing and storage plants pursuing legitimate, commercial activities are not easily distinguished from those that are not.

Unlike the bilateral agreements on arms control that the U.S. reached with the Soviet Union in the 1970s and 1980s, we are dealing in the CWC with not one party, but with over 150. Moreover, instead of the relatively limited number of nuclear weapons production, storage, and launch facilities we were monitoring in the former Soviet Union, the CWC will require us to keep track of a large number of chemical facilities worldwide. In addition, because many of these facilities can produce both legitimate commercial and industrial products, as well as those used in chemical warfare, our current inventory of technical collectors, as well as human sources, will have a far more difficult job in detecting activities prohibited by the Convention. In brief, it is far easier to monitor the tools of nuclear warfare than chemical warfare.

That said, we believe that the transparency and verification provisions of the Convention will contribute to our ability to focus collection and analysis to detect and assess the most threatening CW programs.

Mr. Chairman, this concludes my opening statement. I will be pleased to take any questions to which I can respond in this public forum, remembering that we have an opportunity for more free-ranging discussion in the executive session to follow.

The CHAIRMAN. Thank you. We will now turn to Mr. Lauder.

STATEMENT OF JOHN LAUDER, CHIEF, ARMS CONTROL INTELLIGENCE STAFF FOR THE DIRECTOR OF CENTRAL INTELLIGENCE

Mr. LAUDER. Thank you, Mr. Chairman.

I, too, am pleased to be here this morning to represent the Director of Central Intelligence. I am here in my capacity as Special Assistant to the Director for Arms Control and Chief of the intelligence community's Arms Control Intelligence Staff.

With your permission, we thought it best this morning that General Landry deliver our statement. He does so in his capacity as National Intelligence Officer for General Purpose Forces, in which his staff oversaw the preparation of the national intelligence estimate on the community's ability to monitor the Chemical Weapons Convention. That estimate underlies much of our judgments about our monitoring effectiveness.

He and I, along with some other experts who are here now and others that will join us in the closed session will, of course, be pleased to respond to your questions, and the experts will introduce themselves as they might be called upon to speak.

So thank you very much, Mr. Chairman.

The CHAIRMAN. Thank you very much, indeed.

Mr. Mahley, do you have any thoughts to add?

STATEMENT OF DONALD MAHLEY, ACTING ASSISTANT DIRECTOR, BUREAU OF MULTILATERAL AFFAIRS, U.S. ARMS CONTROL AND DISARMAMENT AGENCY

Mr. MAHLEY. Thank you, Mr. Chairman.

I appreciate this opportunity to address the verifiability of the Convention and I would first like to start out by apologizing for being late to the hearing this morning. We did get tied up in traffic a bit.

As you know, pursuant to section 37 of the Arms Control and Disarmament Act, the U.S. Arms Control and Disarmament Agency, for whom I work, is required to submit a report on the verifica-

tion of treaties submitted to the Senate for ratification. That report represents a consensus of all the executive branch agencies involved in reviewing the Convention and reflects the view of the administration.

Along with that report, we also provided an independent assessment of the verifiability of the Convention, conducted by a group of recognized nongovernment Chemical Weapons Convention experts. Commonly, that is referred to as the Red Team report.

Both of those reports examine possible cheating scenarios and capabilities to detect actions in violation of obligations a state party assumes by joining the Convention. They also underscore the synergistic and deterrent nature of the uniquely extensive and intrusive verification measures included in the Chemical Weapons Convention.

This Convention is without precedent in scope, in that it will ban the use, development, production, acquisition, stockpiling, retention, and direct and indirect transfer of chemical weapons. It is not only a disarmament treaty, eliminating existing programs, but also a nonproliferation treaty, banning the assistance, encouragement, or inducement of anyone to engage in activities prohibited under the Convention. It includes trade restrictions against non-states parties on many dual-use chemicals of interest to developing countries. The declaration and inspection provisions of the Chemical Weapons Convention cover virtually every aspect of a chemical weapons program. A state party has the right to request a challenge inspection of any location or facility located under the jurisdiction or control of any other state party.

The U.S. negotiating objective in the development of the verification provisions for the Chemical Weapons Convention was to ensure an appropriate balance between the need to protect sensitive, nonchemical weapons related information and to protect rights guaranteed in the U.S. Constitution, and the need for intrusiveness in the application of verification provisions to vigorously pursue suspected violations.

Mr. Chairman, a salient feature of the Chemical Weapons Convention, often overlooked by those with experience mostly in bilateral arms control negotiations, is that the Convention is truly a multilateral treaty among equals. It was negotiated by the 39 member countries of the Conference on Disarmament in Geneva, with the active participation of many of the approximately 35 observer countries.

Many key provisions on chemical weapons and production facilities were developed by the United States and the then-Soviet Union—and later Russian federation—which facilitated the multilateral work. However, the give and take of the negotiations had to accommodate multipolar requirements and balances had to be struck to meet many diverse interests, including principally our own.

The Section 37 report states that after difficult negotiations, often requiring extensive consultations with our allies, a balance between verification and protection concerns was struck. The executive branch subsequently determined that signature of the Chemical Weapons Convention was in the U.S. national interest.

The memorandum accompanying the Section 37 report to Congress stated that it is the judgment of the administration that the Convention is clearly in the interests of the United States. That judgment rests in part on the verification regime analyzed in the report. It also rests on the unique value of the Convention as a mechanism for rolling back chemical weapons proliferation and as a bulwark against further chemical weapons spread and use.

I will address that report, Mr. Chairman, further at the committee's closed hearing later today.

I would like to address the issue of verifiability. Of course, no treaty is 100 percent verifiable and every administration involved in the negotiations toward a comprehensive chemical weapons ban has recognized this. Thus, since the beginning of the CWC negotiations, the United States has strongly supported the position that the final agreement must be effectively verifiable. The administration believes that the Convention we have concluded and signed is that—effectively verifiable.

A key criterion for our position and conclusion was whether and to what extent, once the Chemical Weapons Convention enters into force, potential violations by states parties pose unacceptable risks to the interests of the United States.

Additional criteria taken into account in determining effective verifiability were whether the regime would: provide an acceptable level of confidence that states parties are in compliance with its provisions; facilitate the ability of the United States to detect significant violations in a timely manner; serve to deter violations of the Chemical Weapons Convention provisions by increasing the political significance of a violation and by raising the costs and risks associated with cheating; and by comprehensive in scope so that, when taken in the aggregate, the regime forms an interlocking web of information which promotes effective verification.

The Convention contains the most comprehensive and intrusive verification regime ever negotiated in an arms control treaty. It requires declarations as well as access to both declared and undeclared sites through routine and/or challenge inspections. Information to which the United States has access from these declarations and inspections will supplement our national intelligence resources and place us in a better position than we are now to detect clandestine chemical weapons programs. The Convention also requires suspected violators to undertake measures to satisfy compliance concerns or face punitive measures and possible sanctions.

It would be impossible to detect every activity prohibited under the Convention. That statement, however, is as much a tribute to the comprehensiveness of the prohibitions as about the detectability of such actions that are in violation of them.

However, as the Director of my agency, Mr. John Holum, testified before this committee, under the Chemical Weapons Convention it will be increasingly difficult to conceal a CW program as the scope and size of such a program increases.

As additional steps beyond development occur, the likelihood of detection will increase. The comprehensive verification provisions of the Chemical Weapons Convention further complicate a violator's ability to do those kinds of things without detection.

Verification confidences should not be confused with monitoring assessments. The intelligence community monitoring effort is one element designed to provide evidence contributing to U.S. verification and compliance judgments. Compliance judgments, however, incorporate policy judgments which consider other inputs, such as the negotiating record, legal interpretations, and compliance analysis.

These kinds of judgments are based on the relationship of specific events to more generic treaty provisions and on whether, given the range of uncertainty in monitoring confidences, a violation can be determined to have occurred.

Based on the administration's assessment of the provisions of the Convention in light of our criteria for effective verification, the administration has concluded that the Convention is effectively verifiable and that it both protects and serves our national interests.

It would be a difficult task to monitor all chemical facilities worldwide. However, the majority of chemical industry facilities declarable under the Convention are located in Western countries, where the likelihood of cheating is minimal, if not totally absent. About three-fourths of nations assessed to possess or have the capability to produce chemical weapons have already signed the Chemical Weapons Convention, and one would expect, of course, some focus of monitoring capability on these more likely prospects of concern.

With regard to limitations of present verification technology and resources, our Red Team report acknowledges such limitations and concludes with its primary recommendation that the United States maintain a strong research and development program to contribute in the future to enhanced verifiability as technology to support such verification becomes available.

The Arms Control and Disarmament Agency, among others, endorses these plans.

Finally, I would like to address briefly the issue of attempts in the Chemical Weapons Convention Preparatory Commission to weaken the provisions of the Convention.

The Preparatory Commission was tasked to develop very technical, detailed operating procedures. PrepCom participants understand that the Commission cannot revise the CWC provisions or develop procedures that undercut or change the basic provisions and prohibitions of the Convention.

Therefore, the work of the PrepCom, within its parameters of competence, will not, in my judgment as the U.S. representative to that Preparatory Commission, substantively degrade the Chemical Weapons Convention treaty text for which we are seeking your advice and consent, nor will it affect adversely U.S. monitoring and verification of compliance to any greater or lesser degree than the already cemented provisions of the Convention itself.

Mr. Chairman, in conclusion, I would like to reiterate the administration's position that the CWC is effectively verifiable and it is in the national security interest of the United States. The United States is already committed to the destruction of the vast majority of its stockpile. The Russian chemical weapons threat to the United States and allied interests has diminished. However, the threat of chemical weapons proliferation and use by other countries remains

and must be addressed. Simply put, we are better off with the Convention than without it, and there is no better alternative.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Mahley follows:]

PREPARED STATEMENT OF MR. MAHLEY

Mr. Chairman, I am pleased to address the Senate Foreign Relations Committee today on the verifiability of the Chemical Weapons Convention, or CWC.

As you know, pursuant to Section 37 of the Arms Control and Disarmament Act, the U.S. Arms Control and Disarmament Agency is required to submit a report on the verification of treaties submitted to the Senate for ratification. That report represents a consensus of all the executive branch agencies involved in reviewing the Convention and reflects the view of the Administration. Along with that report, we also provided an independent assessment of the verifiability of the Convention, conducted by a group of recognized non-government CWC experts, commonly referred to as the Red Team Report.

Both reports examine possible cheating scenarios and capabilities to detect actions in violation of obligations a State Party assumes by joining the Convention. They also underscore the synergistic and deterrent nature of the uniquely extensive and intrusive verification measures included in the CWC.

The CWC is without precedent in scope, in that it will ban the use, development, production, acquisition, stockpiling, retention and direct and indirect transfer of chemical weapons (CW). It is not only a disarmament treaty, eliminating existing programs, but also a non-proliferation treaty, banning the assistance, encouragement or inducement of anyone to engage in activities prohibited under the CWC. It includes trade restrictions against non-States Parties on many dual use chemicals of interest to developing countries. The declaration and inspection provisions of the CWC cover virtually every aspect of a chemical weapons program. A State Party has the right to request a challenge inspection of any location or facility located under the jurisdiction or control of any other State Party.

The U.S. negotiating objective in the development of verification provisions for the CWC was to ensure an appropriate balance between the need to protect sensitive, non-CW related information and rights guaranteed in the U.S. Constitution and the need for intrusiveness in the application of verification provisions to vigorously pursue suspected violations.

Mr. Chairman, a salient feature of the CWC, often overlooked by those with experience mostly in bilateral arms control negotiations, is that the Convention is truly a multilateral treaty among equals. It was negotiated by the 39 member countries of the Conference of Disarmament in Geneva, with the active participation of many of the approximately 37 observer countries. Many key provisions on chemical weapons and production facilities were developed by the U.S. and the then Soviet Union and later Russian Federation, which facilitated the multilateral work. However, the give and take of the negotiations had to accommodate multipolar requirements and balances had to be struck to meet many diverse interests, including our own. The Section 37 report states that after difficult negotiations, often requiring extensive consultations with our allies, a balance between verification and protection concerns was struck. The executive branch subsequently determined that signature of the CWC was in the U.S. national interest.

The memo accompanying the Section 37 report to Congress stated that it is the judgment of the Administration that the Convention is clearly in the interests of the United States. That judgment rests in part on the verification regime analyzed in the report. It also rests on the unique value of the Convention as a mechanism for rolling back CW proliferation and as a bulwark against further CW spread and use. I will address this report further in the Committee's closed hearing later today.

Mr. Chairman, I would like to address the issue of verifiability. Of course, no treaty is 100 percent verifiable and every administration involved in the negotiations toward a comprehensive chemical weapons ban has recognized this. Thus, since the beginning of the CWC negotiations, the U.S. has strongly supported the position that the final agreement must be effectively verifiable. The Administration believes that the Convention we have concluded and signed is effectively verifiable.

A key criterion for our position and conclusion was whether and to what extent, once the CWC enters into force, potential violations by States Parties pose unacceptable risks to the interests of the United States. Additional criteria taken into account in determining effective verifiability were whether the CWC verification regime would:

- provide an acceptable level of confidence that States Parties are in compliance with its provisions;
- facilitate the ability of the U.S. to detect significant violations in a timely manner;
- serve to deter violations of the CWC provisions by increasing the political significance of a violation, and by raising the costs and risks associated with cheating; and
- be comprehensive in scope so that, when taken in the aggregate, the regime forms an interlocking web of information which promotes effective verification.

The CWC contains the most comprehensive and intrusive verification regime ever negotiated in an arms control treaty. The regime requires declarations as well as access to both declared and undeclared sites through routine and/or challenge inspections. Information to which the U.S. has access from these declarations and inspections will supplement our national intelligence resources and place us in a better position than we are now to detect clandestine CW programs. The CWC also requires suspected violators to undertake measures to satisfy compliance concerns or face punitive measures and possible sanctions.

It would be impossible to detect every activity prohibited under the Convention. That statement is as much a tribute to the comprehensiveness of the prohibitions under the Convention as about the detectability of such actions. However, as the ACDA Director testified before this Committee, under the CWC it will be increasingly difficult to conceal a CW program as the scope and size of such a program increases. As additional steps beyond development occur, the likelihood of detection will increase. The comprehensive verification provisions of the CWC further complicate a violator's ability to do this without detection.

Mr. Chairman, verification confidences should not be confused with monitoring assessments. The Intelligence Community monitoring effort is one element designed to provide evidence contributing to U.S. verification and compliance judgments. Compliance judgments incorporate policy judgments which consider other inputs such as the negotiating record, legal interpretations, and compliance analysis. Compliance judgments are based on the relationship of specific events to more generic treaty provisions and on whether, given the range of uncertainty in monitoring confidences, a violation can be determined to have occurred.

Based on the Administration's assessment of the provisions of the Convention in light of our criteria for effective verification, the Administration has concluded that the Convention is effectively verifiable and that it both protects and serves our national interests.

It would be a difficult task to monitor all chemical facilities worldwide. However, the majority of chemical industry facilities declarable under the Convention are located in Western countries, where the likelihood of cheating is minimal if not totally absent. About three-fourths of nations assessed to possess or have the capability to produce chemical weapons have already signed the CWC—and one would expect some focus of monitoring capability on the more likely prospects of concern.

With regards to limitations of present verification technology and resources, our Red Team Report acknowledges such limitations and concludes with its primary recommendation that the U.S. maintain a strong research and development program to contribute in the future to enhanced verifiability as technology to support verification becomes available. ACDA endorses these findings.

Finally I would like to address the issue of attempts in the CWC Preparatory Commission (PrepCom) to weaken the provisions of the Convention. The PrepCom was tasked to develop very technical, detailed operating procedures. PrepCom participants understand that the Commission cannot revise the CWC provisions or develop procedures that undercut or change the basic provisions of the CWC. Therefore, the work of the PrepCom within its parameters of competence will not, in my judgment as the U.S. Representative to that PrepCom, substantively degrade the CWC treaty text for which we are seeking your advice and consent, nor will it affect U.S. monitoring and verification of compliance to any greater or lesser degree than the already cemented provisions of the CWC.

Mr. Chairman, in conclusion, I would like to reiterate the Administration's position that the CWC is effectively verifiable and is in the national security interest of the United States. The U.S. is already committed to the destruction of the vast majority of its stockpile. The Russian CW threat to U.S. and allied interests has diminished; however the threat of chemical weapons proliferation and use by other countries remains and must be addressed. Simply put, we are better off with the Convention than without it. There is no better alternative.

The CHAIRMAN. Thank you very much, indeed.

We have been joined by Senator Lugar and I would ask him for his statement.

Senator LUGAR. Thank you very much, Mr. Chairman, I join you in welcoming the distinguished witnesses in both open and closed session.

For the record, I want to indicate that I believe that there are serious topics that we will be discussing with the witnesses both in closed and open session today and in other hearings. These include possible faults in the treaty text; real difficulties in monitoring or verifying compliance with some of its provisions; slow progress in rationalizing the disparate efforts of several Federal agencies to develop new CW intelligence or monitoring technology; questions as to whether the CW organization set up to oversee implementation of the Convention will be able or willing to accept U.S. intelligence information in the manner that the U.N. or the IAEA tend to do; minimal preparedness of the U.S. Government to get U.S. industry, other than large chemical manufacturers, to abide by data declaration requirements; questions of how well and at what cost U.S. firms can safeguard proprietary information or U.S. Government facilities can protect classified information during onsite inspections; and questions regarding implementing legislation that may subject U.S. firms to criminal prosecution for environmental or OSHA violations found during a CWC inspection.

More particularly, in addition to considering the text of the CWC, I want to get into some of the issues relating to verification that were left to be decided in the Preparatory Commission before the CWC comes into force, the confidence with which U.S. intelligence can monitor compliance with the Convention's provisions, and the implications of that level of confidence for the verification of compliance.

I believe the committee also has an obligation to consider U.S. readiness to implement onsite inspections in Russia pursuant to the United States-Russian Bilateral Destruction Agreement and at U.S. sites here and abroad; the measures being taken to protect sensitive and proprietary information during onsite inspections at U.S. sites, and to promote the readiness and cooperation of U.S. businesses that may be subject to inspection or data requirements; and the readiness of the U.S. intelligence community to support verification and implementation of the Convention and the Bilateral Destruction Agreement with Russia.

Last, Mr. Chairman, I look forward to discussing with the witnesses their assessments of the gains and losses that ratification of the treaty will entail. In particular, I would solicit their views as to what would constitute "militarily significant" violations of the Chemical Weapons Convention or of the Bilateral Destruction Agreement, which does not require Senate advice and consent, but which will play a major role in the functioning of the Convention. Determinations of the degree or level of a treaty on an arms control agreement that would be militarily significant are crucial, because they become an important benchmark against which to assess our ability to monitor compliance.

As this list indicates, Mr. Chairman, we will not lack for questions of the witnesses. We are grateful for their availability, and

their answers will go a long way in determining the fate on the Chemical Weapons Convention in the Senate.

I thank you.

The CHAIRMAN. Thank you very much.

I would like to start out with three or four specific questions and then would turn to Senator Lugar for his questions.

First, of those countries that have signed the CWC, how many would you think have unacknowledged chemical weapons programs?

General LANDRY. We could give you that answer, Senator, but we would prefer to do that in closed session, if you don't mind.

The CHAIRMAN. Fine. If you would, make a note to do that later.

Also, do you believe that the Convention's entry into force will prompt those with unacknowledged programs to end them?

General LANDRY. The intelligence community at this point has not made a formal judgment. But I can tell you that in conversations with many of my colleagues, we believe that, in fact, there will be such an effect. We are not prepared at the moment to tell you or give you precisely our judgments on which those states might be. But we believe that the general proposition is correct.

The CHAIRMAN. In your efforts to detect the chemical weapons production, stockpiling, and use, are we better off, in your view, with or without the Convention.

General LANDRY. We are better off.

The CHAIRMAN. With the Convention?

General LANDRY. With the Convention, yes. I am going to give that answer to you only from an intelligence community's perspective. Essentially, our judgment is that the CWC will generate a proclivity by many states to either divest themselves of CW programs or not to develop certain programs. That will permit the intelligence community to better focus its efforts on those states of greatest concern. So, generally, from an intelligence perspective, we think we are better off.

The CHAIRMAN. Along the same line, will entry into force of the Convention provide major benefits in our efforts to ban chemical weapons around the world? If so, what would be the benefits?

General LANDRY. We will defer that question to the policy community.

The CHAIRMAN. Should I repeat the question for you?

Mr. MAHLEY. If you would, Mr. Chairman. Please.

The CHAIRMAN. Will entry into force of the Convention provide major benefits in our efforts to ban chemical weapons? If so, what are those benefits?

Mr. MAHLEY. Thank you.

The CHAIRMAN. If you could, give a brief answer.

Mr. MAHLEY. I think I would best answer that question, Senator, by simply saying that I think it will indeed provide some major benefits in efforts to try to ban chemical weapons. What it will do is multifold, both from a practical and from a political standpoint.

No. 1, it will create for the first time an international norm and a legal standard which would permit us to pursue not only the use of chemical weapons which, of course, has been banned since 1925, by the Geneva Convention, but also all the other parts of a chemical weapons program—that is, production, stockpiling, acquisition,

and assistance to others in terms of trying to acquire those sorts of things.

Second, it certainly will establish on a multilateral basis the kind of declarations and potentially the kind of control that will look at the issue of the ability to spread chemical weapons programs either overtly or covertly to various parties, including nonparties to the Convention.

I would defer to my intelligence colleagues in terms of the assessments in individual cases. But it is our experience, for example, that the proliferators and potential proliferators of chemical weapons that we have run into in the world have, almost without fail, undertaken those programs not on the basis of domestic development but on the basis of importation of key elements of those programs from abroad.

This means that those elements, both equipment and precursor chemicals, are going to be moving in international trade. This Convention's entry into force creates a wider web than any of the existing mechanisms to try to give us controls and identification of those kinds of movement and declarations about the end use for those products.

The CHAIRMAN. How do we tell whether there are chemical weapons in a hot spot, like Bosnia?

General LANDRY. Specifically, I would like to address that question, if you don't mind, in closed session.

The CHAIRMAN. All right.

Then, finally, do we expect there would be some significant abstiners from participation in this treaty?

General LANDRY. Yes, we do. Again, we will give you the specific names of those states in closed session.

The CHAIRMAN. All right.

I would turn now to the ranking Republican.

Senator LUGAR. Mr. Chairman, I have two sets of questions. One set deals with the CWC and the U.S. retaliatory capability. Let me ask five questions which relate to the U.S. ability to respond appropriately to CW threats.

Having renounced chemical warfare, even as a means of retaliation, how would the United States deal with the risk that a nonparty or a violator might use chemical warfare against the United States? As a part of that question, is it the view of the intelligence community that, even though the Chemical Warfare Convention may not be universally complied with, the ability of the United States to retaliate with chemical warfare is no longer a necessary element in countering chemical weapons? Is it the view of the intelligence community that U.S. national security is better served by concluding a comprehensive ban, rather than retaining a small retaliatory capability? What is the range of effective alternative retaliatory capabilities? In brief, does the intelligence community share the view that the United States does not need chemical weapons in order to deliver an effective response to CW?

General LANDRY. Senator, those judgments are essentially policy judgments that we leave to both military and the senior civilian policymakers. The intelligence community has not taken a position on any of the questions that you have posed.

Mr. MAHLEY. Senator, if I could inject just for a moment, I think, first of all, for the record, what I would appreciate the capability to do is to also provide a written answer to those questions subsequent to the hearing which would allow us to incorporate a detailed assessment by the U.S. Department of Defense which is the agency charged specifically with some of the elements of the questions you have asked in terms of our security capabilities.

But let me simply say that it has been the judgment, an inter-agency agreed judgment, among the policy community in the executive branch that, No. 1, we do believe that our national security is better served by having this treaty in place than by not having it in place; that, No. 2, our recent experience has been, indeed, that the attempt at retaliation in kind to chemical warfare is not the answer to a chemical threat. And, with that in mind, we certainly believe that this is an effective approach that will satisfy our national security.

But, as I say, I would also like to take that question to have a more complete answer provided by the Defense Department for the record.

Senator LUGAR. I appreciate this brief answer which you have given and also your willingness to draft a reply. I hope that you will follow through with such a reply because I am certain, as we debate this on the floor of the Senate, that this question will be raised by many Senators. A definitive statement that is carefully reasoned and supported interdepartmentally would be tremendously helpful, I believe, in this debate.

The second set of questions I have deals with chemical weapons destruction. Let me get at this issue with a series of related questions.

What is the likely cost of destroying our chemical stocks? Since the United States already assumed voluntarily the overwhelming majority of obligations in the CWC, how far has the destruction process already proceeded? What costs have been incurred thus far? Can the stockpiles be destroyed safely?

I asked this because the Army has reported to the Congress on its consideration of the National Research Council's recommendation on alternative technologies for the destruction of chemical weapons. The Army concluded that the baseline incineration destruction process is safe and effective. It also agreed that the risks from continued storage of the stockpile outweigh the potential risk from incineration. The basic judgment is that the risks of delaying destruction of an aging stockpile by incineration are greatly less than the advantages that might possibly be gained by waiting for other technologies to be proven and made practically available.

Would these views be shared by officials in other governments, that is, other national governments party to the CWC, that will have to destroy their own stockpiles?

Mr. MAHLEY. Again, Senator, I thank you very much and I will again preface my response by saying that we will supplement this with some additional details and facts from the Army and the Department of Defense, who are the executive agent for administering our chemical weapons destruction program.

But let me say, in general, again, the following.

The National Research Council recommendation, as you well know from the excerpt that you read, does indeed indicate that it is a better idea to pursue the current baseline destruction program that the U.S. Army has underway rather than to withhold activity in that area while waiting to see if we can find other alternative technologies. However, it also indicates that we ought to explore alternative technologies simultaneously.

It is the program of this administration to do exactly that, to continue aggressively with the baseline technology program and, at the same time, to look at other alternative technologies on sort of a side track.

We have undertaken at the moment and, of course, are operating the facility at Johnston Island in the Pacific. We are currently in the final testing stages of the facility of Toelle, UT.

It will be the capability of the United States, as assessed by the U.S. Army as, again, the executive agent, that we will be able to complete our destruction program safely within the timeframe of the Chemical Weapons Convention, which is 10 years after entry into force of the Convention.

Of the other countries that we know, the principal country that has thus far declared a chemical weapons stockpile and, therefore, admitted that it has a destruction responsibility under the Chemical Weapons Convention is, of course, the Russian federation. We have engaged in some assistance to the Russian federation in terms of trying to enhance their ability to destroy chemical weapons. We have not yet seen actual production results of that.

The official statements by the Russian federation to us, which we, of course, have no formal way to refute, indicate that they can, with the appropriate priorities and the appropriate resources, complete their destruction program within the 10-year period.

I think that is something which we do need to continue to pursue through separate channels, and I think that that is something we need to continue to place priority on in terms of our relations with Russia, to insure that they do, indeed, continue vigorously to pursue their own destruction program.

Senator LUGAR. I appreciate that short answer and, likewise, your willingness to coordinate a more extensive answer. I would hope it would incorporate material that speaks to the skepticism of many observers who believe that it will be difficult to get the appropriations required for the U.S. Army or for others to do the job within the 10-year period. In this country, that destruction cost, at least estimates of it, seems to mount as more hearings and public knowledge occur and political sentiment at the local levels reverberates around these issues.

Now the questions with regard to the Russian ability to destroy chemical stocks are even more prodigious because the job is enormous and the resources are limited. As a practical measure, is it conceivable that in 10 years time, the Russian stockpile could be destroyed, even with vast effort by the United States and/or other nations that might find it in their interests to cooperate in that respect.

I think this issue has to be addressed, even though it is outside the purview of the treaty, simply in terms of general common sense. Given the existence of these huge stockpiles, the common-

sense question of many people will be: Is it conceivable that, within the Convention's timeframe and given the resources required, and what we know of the difficulties of the Russian economy, that these stocks can be destroyed, even assuming good will on the part of all CWC signatories?

I suppose the Russians, in looking at our debates, can ask a similar question: Is it likely that in 10 years, the U.S. stockpile can be eliminated?

General LANDRY. Senator, we will be discussing those issues with you a little bit later in closed session.

Senator LUGAR. All right.

General LANDRY. As you are well aware, those same debates are currently raging in the former Soviet Union, in Russia.

Senator LUGAR. Yes, they are.

The CHAIRMAN. Excuse me. I would hope that your reply to Senator Lugar would be as complete and as unclassified as possible because this is the ammunition we will need on the floor. If the question is whether this should be classified or not, try to veer on the side of unclassified.

Senator LUGAR. Finally, I will ask, Mr. Chairman, later on, when we are in closed session, about the specific elements of verification and reliability.

I understand that the witness will be addressing the Intelligence Committee later in this day in another hearing. That committee will also arrive at an independent judgment on the merits or demerits of this treaty.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

Now we will recess and will move up to room S-407.

[Whereupon, the committee recessed, to reconvene in closed session and reconvened in open session at 10:15 a.m., on June 9, 1994.]



CHEMICAL WEAPONS CONVENTION (TREATY DOC. 103-21)

THURSDAY, JUNE 9, 1994

U.S. SENATE,
COMMITTEE ON FOREIGN RELATIONS,
Washington, DC.

The committee met, pursuant to notice, at 10:15 a.m., in room SD-419, the Dirksen Senate Office Building, Hon. Claiborne Pell (chairman of the committee) presiding.

Present: Senators Pell, Lugar, and Helms.

Senator LUGAR [presiding]. Chairman Pell has been detained temporarily. He has asked me to proceed so that we can expedite hearing our witnesses and raising questions this morning.

I have an opening comment. I just simply want to thank the chairman for calling this hearing. I am pleased to join him in welcoming the panelists.

To date, the committee has heard, primarily, from government witnesses on the Chemical Weapons Convention. Today, we will hear testimony from public witnesses, former officials from the previous two administrations, analysts from think tanks and the national laboratories and from representatives of the chemical industry.

The committee will then hold several more hearings on the Convention before seeking to produce a report for the Senate, and to render a judgment as to whether this Convention furthers the national interest of the United States.

I want to commend the chairman for his willingness to convene as many hearings as necessary. He has been thoughtful and accommodating in that respect in order that we might clarify provisions and obligations contained in the Chemical Weapons Convention.

In those circumstances where the responses of previous witnesses have not been as complete or satisfactory as the committee might wish, the chairman has been willing to recall witnesses for further elaboration or to pose additional questions for more detailed written responses.

For its part, the administration has responded in a timely fashion to our request for written responses to written questions.

I am looking forward to hearings over the next few weeks wherein the committee will focus, again, on the ability of the intelligence committee to monitor compliance with the provisions of the Convention.

We will concentrate, as well, on the will and the capabilities of our military establishment to identify and to respond to militarily significant violations of the Convention's provisions and obligations.

This committee will not be rushed as it probes the strengths and weaknesses of the Convention.

By the same token, we recognize that actions taken by the United States with respect to the CWC will have a significant bearing on the pace and the scope of activities by other current and potential signatories to the Convention.

I am confident that, at the end of the hearing process, we will be able to present our colleagues in the Senate with a balanced assessment of the Chemical Weapons Convention.

And now, it is my privilege to call upon our distinguished witnesses. And may I ask that you testify in this order. First of all, Mr. Carpenter, then Ms. Hoeber, Dr. Meselson, and Mr. Moodie.

If you can, please confine your remarks to about 6 minutes. And then we will proceed to questioning on the part of the chairman, as he returns, and others that may join us. We greet you, Dr. Carpenter.

STATEMENT OF WILL B. CARPENTER, CHEMICAL INDUSTRY CONSULTANT, SALT LAKE CITY, UT

Dr. CARPENTER. Thank you, Mr. Chairman. We appreciate the opportunity to be here again today on behalf of the Chemical Manufacturers Association [CMA] and give you our strong support for the Chemical Weapons Convention.

In CMA's view, the Chemical Weapons Convention will be the critical tool in the global effort to eliminate the threat of chemical weapons.

This is the third time that I have appeared before this committee to discuss the Chemical Weapons Convention and its effect on commercial chemical industry.

I can tell you that each time, the commercial chemical industry, in that time period, made a strong, positive contribution to bringing the chemical weapon talks to the conclusion that they are now, a contribution that we are prepared to continue.

We have nearly 15 years of experience with the Chemical Weapons Convention. I, personally, have been involved for all of that time as chairman of the CMA's chemical weapons work group.

I would like to spend just a few moments highlighting what the industry and the international community has achieved in those years through negotiation.

There are several significant reasons why the chemical industry supports the Chemical Weapons Convention. The U.S. chemical manufacturers do not make chemical weapons. Our industry does produce commercial chemicals which can be illegally converted to weapons.

An effective treaty could have the effect of liberalizing existing export controls on our industry's products and technologies for legitimate uses.

The hallmark of the Chemical Weapons Convention is the degree to which the private sector is included in the effort to ban CW production, storage, and use.

International inspection teams will have unprecedented access to chemical plants, access which our industry promoted as the best single way to assure our compliance with the Convention.

In our view, a verifiable ban on chemical weapons must include commercial chemical facilities. And that requires a degree of intrusion into those plants.

As we see it, a challenge throughout the negotiations, and in the implementation process, is to assure maximum verifiability with a minimum of burden on the chemical industry.

I am pleased to note that the administration and the Organization for Prevention of Chemical Weapons, the international organization, are headed in the right direction. But let me make it clear, however, there will be costs associated with the industry's compliance with the CWC.

There will be reporting requirements, inspection of our facilities, new domestic and international regulations, and the risk of losing proprietary information.

The OPCW Preparatory Commission has been hard at work developing the processes and procedures needed to implement the CWC. And in general, the industry's views have been taken into consideration in the work at the Hague.

The PrepCom has begun work on the measures necessary to protect against wrongful disclosure of confidential business information. CMA believes that these measures, and reasonable inspection procedures should, and I underline should, provide significant protection for chemical companies.

The PrepCom has also recognized that an increased burden on the chemical industry also means a substantial administrative burden for the OPCW. Following a small test of revised formats by some 25 U.S. companies, the reporting burden should be manageable.

Please note that I said that it should be protected, and it should be manageable. The fact is that the regulatory decisions taken in the Hague still require implementation in the United States.

CMA is unequivocal in our desire to ensure that the CWC regulatory regime remains an arms control matter. The CWC should not be seen as an opportunity to regulate our industry for other policy reasons.

The administration delivered draft CWC implementing legislation to Congress early last week. The draft recognizes some concerns identified by the chemical industry and attempts to resolve them.

If the final regulatory package reflects the general intent behind much of the legislation, we believe that the potential regulatory burden on, and intrusion in commercial facilities should be minimal.

There are areas of considerable uncertainty, however, in that the CWC regulatory efforts will be lodged in several agencies in the U.S. Government. At the present, there is no provision to assure consistency in the regulatory efforts of these agencies.

And perhaps more to the point, there are no provisions requiring that the U.S. Government adopt the regulatory mechanisms being developed in the Hague.

Another area of uncertainty arises from the likelihood that the Department of Commerce will be responsible for CWC compliance for industry. Conceptually, we have no problem with Commerce de-

veloping regulations affecting the industry's CWC-related requirements.

However, unless the Department of Commerce is given the appropriate budget and manpower resources, U.S. CWC compliance will fall short of the goal.

Beyond that, there are a host of other issues developing in this that merit attention. They include some definitions, such as the definition of toxic chemicals and what happens to hydrocarbon and polymer production as is the possible criminalization of civil violations.

The international community has met a series of challenges in the Chemical Weapons Convention. It met the challenge of developing an appropriate verification regime.

It met the challenge of monitoring those facilities that could be diverted to CW production. And it met the challenge of protecting sensitive commercial information.

The greatest challenge still lies ahead of us. And that is translating the obligations and responsibilities of the CWC into national law.

The first step in meeting that challenge is for the Senate to provide its advice and consent to a ratification of the CWC. Having that ratification will mean that the most important of the CWC activities, that is the structure of government stockpiles and verification of government CW production facilities, can get underway quickly.

That focus will allow time and opportunity for the development of reasonable, thoughtful regulations affecting the chemical industry both in here and in the Hague. The CWC is the right answer to the threat posed by chemical weapons. And we are fully supportive of implementation.

[The prepared statement of Dr. Carpenter follows:]

PREPARED STATEMENT OF DR. CARPENTER

Good morning, Mr. Chairman. I am Will Carpenter, and I am here today to convey the strong support of the Chemical Manufacturers Association (CMA) for the Chemical Weapons Convention (CWC). In CMA's view, the CWC will be the critical tool in the global effort to eliminate the threat of chemical weapons.

Mr. Chairman, today is the third time I have appeared before this Committee to discuss the CWC and its effect on the commercial chemical industry. The commercial chemical industry made a strong, positive contribution to bringing the CWC talks to a successful conclusion. It is in the spirit of that contribution that the member companies of CMA are supporting the Chemical Weapons Convention, and the effort to obtain quick ratification of the agreement. It is in that spirit that the chemical industry intends to continue its efforts to support CWC implementation.

CMA and its member companies have nearly 15 years of experience in the CWC negotiation. I personally have been involved for over 12 years, for much of that time as Chairman of CMA's Chemical Weapons Work Group. We maintained a high level of effort, involving many chemical companies, because, as the Nation's largest export industry (returning a trade surplus of \$17 billion in 1993 alone), the CWC could have taken a substantially more onerous approach to industry. I would like to spend a few moments highlighting what the industry—and the international community—achieved during those years of negotiation.

There are several significant reasons why the chemical industry supports the CWC. U.S. chemical manufacturers do not make chemical weapons. Our industry does produce commercial chemicals which can be illegally converted into weapons. An effective CWC could have the positive effect of liberalizing the existing system of export controls applicable to our industry's products, technologies and processes.

The hallmark of the Chemical Weapons Convention is the degree to which the private sector is included in the effort to ban CW production, storage and use. In this

respect, the CWC is unique among arms control agreements. National governments, and the new Organization for the Prohibition of Chemical Weapons (OPCW), will build a considerable data base of information on legitimate commercial activities. International inspection teams will have unprecedented access to chemical facilities—access that our industry promoted as the single best way to assure compliance with the convention. In our view, a verifiable ban on chemical weapons must include commercial chemical facilities. And that in turn requires a degree of intrusion into those facilities.

As we see it, the challenge throughout the negotiations and in the implementation process is to assure maximum verifiability with a minimum of burden on the chemical industry. I am pleased to note that the Administration, and the OPCW, seem to be headed in the right direction.

Let me make clear, though, that the CWC will have a negative impact on the U.S. chemical industry. There are costs associated with the industry's compliance with the convention, in the form of reporting requirements, and verification activities. The industry will have to educate and assign personnel to address those requirements. We are going to have a National Authority, a new regulatory body, writing still more regulations for a heavily-regulated industry. Commercial chemical facilities will be subject to inspections by international teams on relatively short notice. And individual chemical plants are at risk of losing proprietary information or their standing in the community. It is not hard to imagine a scenario where a simple reporting error results in headlines about a company's "violation of the Chemical Weapons Convention."

The OPCW Preparatory Commission has been hard at work developing the processes and procedures needed to implement the CWC. The industry's views have generally been taken into account in the Hague, either through industry contacts with their national governments, or through meetings of the PrepCom experts with industry representatives. The last such meeting took place in The Hague from April 26-27, 1994.

The PrepCom has begun work on the measures necessary to protect against the wrongful disclosure of confidential business information. Protection of proprietary information was one of the industry's primary goals through the negotiations, particularly the data that is wholly unrelated to the industry's compliance with the CWC. Although the Convention contains detailed provisions on the steps necessary to protect proprietary data, more detailed requirements for the classification of data, secrecy requirements for OPCW employees, and remedies for wrongful disclosures are needed. CMA believes that these developments, along with the development of reasonable inspection procedures, *should* provide a significant measure of protection for chemical companies.

The PrepCom has also recognized that an increased burden on the chemical industry means a substantial administrative burden for the OPCW. We have seen considerable progress in reducing the potential reporting burden through simplified declaration formats, for example. At the beginning of the process, the draft declaration formats were a confusing jumble of data and reporting requirements. Following a small test of the revised formats by some 25 U.S. companies, the reporting burden *should* be manageable.

Mr. Chairman, please note that I said that proprietary information *should* be protected, and that the burden *should* be manageable. The fact is that the regulatory decisions taken in the Hague still require implementation in the United States. As you know, the U.S. chemical industry is one of the most widely and deeply regulated industrial sectors. We have a great deal of experience with regulatory programs that can be expanded into other, unrelated policy areas.

CMA is unequivocal in our desire to ensure that the CWC regulatory regime remains an arms control matter. The CWC has not, and must not, be seen as an opportunity to regulate our industry for other policy reasons. The risk of such an expansion is that the costs to industry, and the government, of CWC compliance will be increased, while the treaty compliance effort is reduced. Ultimately, if the U.S. government imposes a CWC regulatory regime that is significantly more onerous in nature and scope from that adopted by other governments, there are substantial adverse competitiveness implications.

The Administration delivered draft CWC implementing legislation to Congress early last week. The Administration's draft recognizes some concerns identified by the chemical industry, and attempts to resolve them. If the final regulatory package reflects the general intent of the draft legislation, the potential regulatory burden on, and intrusion into, commercial facilities should be minimal.

There are areas of considerable uncertainty, however. For example, the legislation places regulatory responsibility for the CWC in several agencies of the U.S. government. At present, there are no provisions to assure consistency in the regulatory ef-

forts of these agencies. And perhaps more to the point, there are no provisions requiring the U.S. government to adopt the regulatory mechanisms being developed in the Hague.

Another area of uncertainty arises from the likelihood that the Department of Commerce will be responsible for CWC compliance for industry. Conceptually, CMA has no problem with Commerce developing regulations affecting the industry's CWC-related requirements. However, unless the Department of Commerce is given the appropriate budget and manpower resources, U.S. regulations and administrative responsibilities under the CWC compliance may fall far short of the intended goal.

Several other areas of the implementing legislation will merit attention. These include necessary clarifications in the use of certain terms in the Convention and under U.S. law (such as the term "toxic chemical"), the applicability of certain CWC exemptions (such as for hydrocarbon production and polymer production), and the criminalization of essentially civil violations. The industry is also concerned that the U.S. government develop appropriate procedures which restrict the disclosure of proprietary information to other agencies of the U.S. government, and ensure that the disclosed information is used only for meeting U.S. obligations under the Convention. In each of these areas, there is the potential that the United States government will go beyond the terms of the Convention to impose additional requirements, and burdens, on the U.S. industry.

The international community met a series of challenges in the Chemical Weapons Convention. It met the challenge of developing an appropriate verification regime. It met the challenge of monitoring those facilities that could be diverted to CW production. It met the challenge of protecting sensitive commercial information. The greatest challenge still lies before us: translating the obligations and responsibilities of the CWC into national law.

The first step in meeting that challenge is for the Senate to provide its advice and consent to ratification of the CWC. The United States should be one of the first sixty-five parties to the Convention, because our government has an important leadership role in the Hague. Timely ratification will mean that the most important CWC activities—the destruction of government stockpiles, and the verification of government CW production facilities—can get underway quickly. That focus should provide the time and opportunity for the development of reasonable, thoughtful regulations affecting the chemical industry, both here in Washington and in the Hague. We urge the Committee to recommend ratification of the Convention by the Senate.

Mr. Chairman, the CWC is the right answer to the threat posed by chemical weapons. And now is the right time to ratify and adopt the Convention. Thank you.

The CHAIRMAN [presiding]. Thank you very much. I apologize for being in and out. But this is one of those days when we have two markups and a hearing that are going on simultaneously.

I would like to thank Senator Lugar very much for being here and helping out. You have heard there is a 6-minute limitation.

Ms. HOEBER. Yes, sir. The CHAIRMAN. Mrs. Hoeber.

STATEMENT OF AMORETTA HOEBER, FORMER DEPUTY UNDER SECRETARY OF THE ARMY, ARLINGTON, VA

Ms. HOEBER. All right. Thank you very much, Mr. Chairman, Senators. I appreciate the opportunity to testify.

I am testifying before you today as a private citizen. But I do wish to point out that I was Deputy Under Secretary of the Army during the Reagan administration. And in that role or capacity, I managed all of the Army's chemical warfare, retaliatory and defensive programs.

I would like the chance to—I appreciate the chance to raise some of my concerns about the Chemical Weapons Convention here, and to go on record recommending against ratification.

There are a number of reasons why I believe the treaty should not be ratified that are detailed in my written submission. And I would like to summarize them briefly in the 6 minutes that I have.

First, I would like to have it clearly understood by the committee that, contrary to the statements of the proponent, this treaty will not rid the world of chemical weapons.

This is true for a number of reasons, but the most important is that the treaty will not be global. In fact, several countries of serious concern to the United States have already announced that they will not sign it, for example, North Korea.

And second, even if the treaty were globally signed, there is no assurance that it would be abided by, and in my view, very little capability to verify that. Verification is going to be treated by someone, in detail, in the later panel. So I will not discuss it further here myself.

My opinion is that even in the best of circumstances then chemical weapons will remain a threat despite a treaty.

The second reason that I oppose ratification is that the Chemical Weapons Convention will reduce the ability of the United States to deter chemical warfare by eliminating retaliation in kind from the menu of options available to the President.

The issue of whether the United States should eliminate the bulk of its existing chemical stockpile has long since been made. That was made during the Reagan administration. And I was part of that decision. And I fully support it.

The unitary munitions have been obsolete for some time. However, the decision to eliminate the binary chemical retaliatory capability, a minuscule capability, from the range of options available to a President should chemical weapons be used against us, is in my view, a mistake.

I believe that the existence of this extremely small retaliatory capability, by itself, creates an uncertainty in the mind of a potential aggressor that adds to deterrence.

Third, this treaty, by purporting to rid the world of chemical weapons, guarantees complacency. And I believe this will have the inevitable effect of reducing the level of effort going into chemical, biological defenses.

What we suffer will not be the ability of the countries who wish to acquire chemical weapons, but rather our ability to provide for our own forces and for those of our allies.

History has shown that, in every case, the ratification of a treaty by the Senate has been seen as reducing the threat to the U.S. military, whether such a reduction actually occurs or not.

As a result, expenditures on research, development, and acquisition of measure to defend against those threats have always been cut drastically. The only people who benefit by this are our adversaries.

I cite, as an example, the Biological Warfare Convention, which resulted in more than a 50-percent cut in research and development of protection against biological agents within a year after its ratification, and a reduction in our ability to determine the actual facts of the Soviet biological warfare activities, for example, at Sverdlovsk, also followed.

I note that this limitation on research and development efforts in biological warfare defense has come to be regretted by our country as other countries in the world have pursued this as a means of war.

As a former Army official, and as the sometimes-called "mother of the chemical corps," I have very serious concerns about a reduction in the attention paid to the maintenance of defenses against chemical weapons. It is far more difficult for us to provide for defenses than it is for an adversary to manufacture offensive material.

Many, including those in Congress, have supported the Department of Defense's efforts to provide troops with quality protective gear.

There is no disputing, however, the fact that this has had a low priority relative to other things. And I can only imagine how low a priority it is likely to have when there is not supposed to be any threat.

Last, I want to make the point that the Chemical Weapons Convention makes a mockery of arms control objectives themselves. It is being touted because of Geneva protocol an existing treaty that has failed to prevent the use of chemical weapons.

There is something wrong with the logic that says in order to get over the problems created by the violation of one treaty we should ratify another one.

Thank you very much.

The CHAIRMAN. Thank you very much indeed, Ms. Hoeber.

[The prepared statement of Ms. Hoeber follows:]

PREPARED STATEMENT OF MS. HOEBER

Thank you for the opportunity to testify before you today. As you may recall, I was the Deputy Under Secretary of the U.S. Army during the Reagan Administration, and I led the Army's efforts in chemical warfare matters between 1981 and 1986. I appreciate the chance to raise some of my concerns about the Chemical Warfare Convention and to go on record recommending that the Convention not be ratified.

There are a number of reasons why I believe the treaty should not be ratified that relate to the foreign policy concerns of this Committee. However, given the limited time available to me to offer my comments, I can only summarize a few of my concerns, and those only briefly. I hope, should I succeed in raising any doubts, that the Committee will pursue this matter most carefully and actively seek out more information and insights on the problems of the Convention prior to concluding their deliberations.

First, it should be clearly understood by the Committee that, contrary to the statements of the proponents this treaty won't "rid the world of chemical weapons."

This is true for several reasons:

- The treaty will clearly *not* be global, and, in fact, several countries of foreign policy concern to the United States, namely Libya and North Korea, have announced that they will not sign the Convention.
- Even if the treaty *were* universally signed, there is no assurance that it will be abided by in the case of all the signatory countries, and little confidence that violations of military significance in countries other than the major powers would come to the attention of the United States. I don't want to get into the details of the viability and efficacy of the verification regime—burdensome, onerous and expensive as it is—because others testifying today will do so, but I would like to suggest that your Committee ask the intelligence community to honestly assess whether we could have a reasonable likelihood of detecting a militarily significant violation that was done with an intent to conceal. I do not believe such detection is probable.

Thus, even under the best of circumstances, chemical weapons will remain a threat. This treaty does not change that fact of life. The only chemical weapons which the treaty will eliminate are those which would be eliminated in the absence of a treaty—primarily ours, and, if we fund the process, those declared stocks of the former Soviet Union.

Second, the Chemical Weapons Convention will reduce the ability of the United States to deter chemical warfare by eliminating retaliation in kind from the menu of deterrence options available to a President.

The issue of whether the United States should eliminate the bulk of its chemical weapons stockpile has long since been decided, and correctly in my view. The unitary munitions have been obsolete for some time. However, the decision to eliminate the more modern although minuscule chemical retaliatory capability—the binaries—has been a function of the same wishful thinking that has resulted in this treaty. Even though the use of the retaliatory binaries was forsworn by the prior Administration, in my view their existence *per se* created an uncertainty in the minds of anyone who might be considering using chemical weapons against our forces or against those of one of our allies, and this uncertainty has enhanced deterrence.

This treaty will eliminate the flexibility that some retaliation in kind capability provides to our President, jeopardizing in particular the potential security of U.S. military personnel.

Third, this treaty by purporting to "rid the world of chemical weapons," guarantees complacency which will have an inevitable effect of reducing the level of effort going into defenses against chemical weapons.

What will suffer will not be the ability to acquire chemical weapons for those who would use them, but rather our ability to provide for the defenses of our own forces.

History has shown that in every case, the ratification of a treaty by the Senate has been seen as reducing the threat to the United States military, whether such a reduction actually occurs or not. As a result, expenditures on research, development and acquisition of measures to defend against that threat are cut drastically. The only people who benefit by this have been our adversaries.

I cite as an example the Biological Warfare Convention, which resulted in more than a 50% cut in research and development of protection against biological agents within a year after its ratification, and a reduction in our ability to determine the actual facts of the Soviet biological warfare activities—for example, at Sverdlovsk—until the change in the world order put the Russians in a position to discuss the matter. Another example is that of the SALT treaties, which resulted in severe cuts in research and development on both U.S. ballistic missile penetration measures and defense of the U.S. population against third nation and rogue nation ballistic missile threats.

It should be noted, by the way, that funding cuts do not have a linear effect. The cut of 50% in the funding of biological defense efforts resulted in a cut in effectiveness of far more than that amount, perhaps as much as 90%.

I also note that the limitations of research and development efforts on both biological warfare defense and ballistic missile defense have come to be regretted as it has become clearer and clearer that there are countries whose activities are not as constrained by what has come to be referred to as "international norms."

As a former Army official, and as the sometimes-called "mother of the Chemical Corps," I have very serious concerns about a reduction in the attention paid to maintaining chemical defense preparedness. It is far more difficult to provide for defenses than it is for an adversary to manufacture offensiver materiel in this case. Many, including those in Congress, have supported the Department of Defense's efforts to provide American troops with quality chemical protective gear. There is no disputing the fact that these programs had a relatively low priority even in the face of a clear and defined threat from major adversaries during the Cold War. I am particularly concerned about what will happen to these programs should this treaty be approved, for the United States military remains in need of vastly improved protective gear, equipment modifications, decontamination capabilities and training. One can only imagine what low priority such pursuits will enjoy when there is not supposed to be any threat at all. And history has shown us that adversaries—and there are always unexpected adversaries—will take advantage of such weaknesses.

Fourth, and the final point I wish to make, the Chemical Weapons Convention makes a mockery of arms control objectives themselves and sets an extremely dangerous precedent.

To see what this treaty does to the concepts of foreign relations and international law, it is necessary to understand the context that has driven the completion of the CWC. And that context is that the only reason for this Convention is that an existing Convention—the Geneva Protocol, which prohibits first use of chemical weapons—is inadequate and has failed.

Why has it failed? The Geneva Protocol has failed because there are no international mechanisms for enforcing it and "international norms" have not served to accomplish that enforcement. The Chemical Weapons Convention before you today does not solve this problem. Nor does it strengthen the "international norms." And

it is use, not possession, of such weapons that is the fundamental problem faced by the nations of the world.

Let's look at a specific example. When the Iraqis used chemical weapons against Iran, the international community was horrified. The "international norm" against that use was as strong as it has ever been. Yet the international community was still not able to figure out what to do about it. No sanctions were ever imposed; no resolutions were ever passed condemning that use; nothing was ever done about that treaty violation except to increase the arguments by some that if that treaty had failed, another treaty should be concluded.

The logic of this escapes me. If "international norms" were not strong enough to effectively isolate or punish a country whose violations resulted in the death of a significant number of people, what makes us think that the "international norms" would be strong enough to prevent or punish the violator of a new treaty which involved only the possession of a prohibited weapon? This so-called solution is an exercise in escapism. It cheapens the currency of arms control as well as avoids the real problem.

That real problem is what to do about violators. We clearly haven't solved that problem, either nationally or internationally. Witness the situation in North Korea today relative to the nuclear non-proliferation treaty.

Unless we resolve the broader issue, in my view the Chemical Weapons Convention is worse than meaningless. It's a pretense. This is the foreign policy matter which should be addressed by this Committee.

Thank you for your attention.

STATEMENT OF MATTHEW MESELSON, DEPARTMENT OF BIO-CHEMISTRY AND MOLECULAR BIOLOGY, HARVARD UNIVERSITY, CAMBRIDGE, MA

Dr. MESELSON. Mr. Chairman and Senator Lugar, I am privileged to appear in response to the committee's invitation to comment on the Chemical Weapons Convention.

Let me say at the start that I believe the Chemical Weapons Convention will enhance the security of the United States and that it merits strong Senate support and timely ratification.

In evaluating the Convention, it is important to consider U.S. national security interests across the full range of chemical and biological weapons.

This is because these weapons form a continuous spectrum, from presently stockpiled chemicals, through toxins to infectious agents of disease; from the temporarily incapacitating to the highly lethal; and from weapons with only a short range of action to weapons that could attack whole populations.

It is within the capability of nearly every nation, and even of some dissident or criminal groups, to acquire powerful chemical and biological weapons.

The principal barrier to proliferation is not cost. And it is not technical complexity. It is military convention and the prevailing norm that holds the hostile use of poison and disease to be abhorrent.

The fact that CBW weapons are considered to be unconventional and abhorrent is a valuable U.S. security asset that should be carefully preserved and strengthened. There are two principal reasons why this is so.

First, proliferation of CBW weapons would endow many states, and even terrorist groups, with the capability to threaten the United States and its allies with a level of violence much greater than that which is otherwise accessible to them.

Second, the use of CBW weapons in local and regional conflicts in which the United States and its allies are not initially involved

could nevertheless provoke military escalation and extreme political instability eventuating in the commitment of U.S. military forces and their exposure to CBW weapons.

Simply put, a rich nation like the United States should seek to maintain and strengthen the barriers against the proliferation of cheap weapons of mass destruction.

Twenty-five years ago, U.S. policy depended on possession of chemical and biological weapons as a deterrent to their use by others.

At that time, however, the policy began to change as a result of extensive interagency study and review which concluded, among other things, that like-for-like deterrence does nothing to prevent proliferation and, if anything, encourages it.

I will now skip part of my testimony in order to save time.

The CHAIRMAN. The full text will appear in the record as if read.

Dr. MESELSON. Thank you, Senator.

Now, for the first time in the progression of steps to abolish the threat of CBW weapons, the Senate has before it a global treaty that prohibits development, possession, and transfer of chemical weapons and includes measures for verification, penalties for non-compliance and, perhaps most importantly, a standing political committee of states parties with a full-time professional technical secretariat to oversee compliance with the provisions of the treaty.

The verification provisions of the Convention, especially those for short-notice challenge inspection, are substantial and unprecedented.

Considerable debate has centered on attempting to quantify their effectiveness. Some individuals with relevant experience are optimistic. Others are not.

Until the Convention has operated for a time, the debate is unlikely to narrow. At a minimum, however, the Convention's verification provisions will add significantly to the ability of U.S. intelligence agencies and the world community to detect and verify violations and to distinguish between violations and false alarms. I believe that has also been the burden of the testimony that this committee has heard earlier from the intelligence community.

This, together with the political and moral force of a global agreement to outlaw chemical weapons, will act to deter violations and false accusations, maybe not enough to prevent all of them, but certainly to deter them, and to break the cycle in which some nations might seek CBW weapons out of concern that others are doing so.

Finally, and this is most important, the Convention will give the President of the United States an increased range of mechanisms and options for dealing with suspicions, allegations, and violations.

Weighted against these considerable benefits, the costs and limitations of the Convention provide no basis for withholding the advice and consent of the Senate to its ratification.

While strongly supporting prompt U.S. ratification of the Chemical Weapons Convention, there is an issue that gives me and many others serious concern.

This is the risk of any explicit or implicit Senate endorsement of an erroneous treaty interpretation that creates a loophole for states to develop, test, produce, stockpile, transfer, and sell chemical

weapons in any quantity and of any type based on chemicals that, in the opinion of such states, are temporarily disabling rather than lethal, either those chemicals presently used for riot control or more powerful, so-called riot control agents yet to emerge from the laboratory.

Some U.S. officials who have appeared before this committee have suggested that the Convention's only restriction on "riot control agents," as that term is defined in the Convention, is that they should not be used as a method of warfare.

If this claim were true, these disabling chemical weapons would be entirely exempt from the Convention's prohibitions on development, production, stockpiling, and transfer.

For example, states would be free to develop and accumulate stockpiles of bombs or artillery projectiles loaded with so-called temporarily acting disabling agents, stockpiles whose only plausible use would be in war.

Each state could decide for itself what agent and munitions to stockpile. If exempt from the types and quantities requirement of the Convention, there would be little more protection for the United States against such eventualities than the self-restraint of other states.

Indeed, large quantities of exactly such munitions were used in World War I and were stockpiled by both sides in World War II. Riot control agents were extensively used in the Iraq-Iran war.

And after the Gulf war, the U.N. Special Commission found that approximately half of Saddam Hussein's chemical arsenal consisted of large caliber mortar projectiles loaded with riot control agent CS.

In war, riot control agents are used to drive personnel from protective cover into the line of ground fire or bombing, to disrupt their operations and otherwise as multipliers of lethal force.

History and common sense makes it absolutely clear that riot control agents can be, depending on how they are used and in what quantities, chemical weapons of war.

In fact, the claim that riot control agents are exempt from all parts of the Convention, except its prohibition against actual use as a method of warfare is incorrect, unnecessary for preserving virtually all of the presently permitted U.S. uses of riot control agents and, in fact, dangerous to U.S. security.

Riot control agents are not exempt from the treaty. The status of riot control agents is clearly spelled out in article II of the Convention.

They are defined as: "Any chemical not listed in a schedule, which can produce rapidly in humans sensory irritation or disabling physical effect which disappear within a short time following termination of exposure."

This would include, for example, the widely used irritant CS, and also, if present development programs succeed, powerful opioid chemicals intended to cause temporary paralysis, and other chemicals intended to cause temporary disorientation.

Every riot control agent, as defined above, is also a "toxic chemical" as that term is defined in the Convention as: "Any chemical which, through its chemical action on life processes can cause death, temporary incapacitation—" and that is what includes riot control agents—"temporary incapacitation."

In other words, "riot control agents," as defined in the Convention, are "toxic chemicals."

The definition of the Convention of "chemical weapons," to which all of its prohibitions of development, possession, and transfer apply, is "toxic chemicals and their precursors, except—" and this is the key to the entire Convention—"except where intended for purposes not prohibited under this Convention, as long as the types and quantities are consistent with such purposes."

It follows that the status of riot control agents, like any other toxic chemicals and munitions designed for their delivery depends on the intended purpose, so long as their types and quantities are consistent with that purpose.

The Convention's definition of chemical weapons, based on purpose rather than on the chemical identity of a subject, underlies the entire Convention.

It enables the Convention to deal with dual-use chemicals, chemicals having peaceful uses, and which is true of almost all chemicals, and with chemicals that have not yet been discovered, protecting peaceful uses and accommodating the inevitable advance of science.

The specific inclusion of "riot control purposes" in the list of purposes permitted by the Convention simply underscores the fact that riot control agents are subject to the same definition of chemical weapons as any other toxic chemicals.

Moreover, virtually all present permitted uses of riot control agents are permitted by the Convention.

The Convention's list of purposes that are permitted specifically includes: "Military purposes not connected with the use of chemical weapons and not dependent on the use of toxic properties of chemicals as a method of warfare."

And also another permitted purpose: "Law enforcement and domestic riot control."

Thus, the use of riot control agents for virtually all uses permitted by U.S. policy is permitted under the Convention.

For a more specific discussion of what is permitted, I would request permission of the committee to include in the record, a paper by Abram Chayes, myself, and R. Justin Smith entitled "Proposed Guidelines on the Status of Riot Control Agents Under the Chemical Weapons Convention."

Thank you.

The CHAIRMAN. Thank you very much.

[The prepared statement of Dr. Meselson follows:]

PREPARED STATEMENT OF DR. MESELSON

Mr. Chairman and members of the Committee, I am privileged to appear in response to the Committee's invitation to comment on the Chemical Weapons Convention, signed by the United States and 156 other countries and submitted to the Senate for its advice and consent to ratification.

Let me say at the start that I believe the Chemical Weapons Convention will enhance the security of the United States and that it merits strong Senate support and timely ratification.

In evaluating the Convention, it is important to consider U.S. national security interests across the full range of chemical and biological weapons. This is because these weapons form a continuous spectrum—from presently stockpiled chemicals through toxins to infectious agents of disease; from the temporarily incapacitating to the highly lethal; and from weapons with only a short range of action to weapons that could attack whole populations.

It is within the capability of nearly every nation and even of some dissident or criminal groups to acquire powerful chemical and biological weapons. The principal barrier to proliferation is not cost or technical complexity. It is military convention and the prevailing norm that holds the hostile use of poison and disease to be abhorrent.

The fact that CBW weapons are considered to be unconventional and abhorrent is a valuable U.S. security asset that should be carefully preserved and strengthened. There are two principal reasons why this is so.

First, proliferation of CBW weapons would endow many states and even terrorist groups with the capability to threaten the U.S. and its allies with a level of violence much greater than that which is otherwise accessible to them.

Second, the use of CBW weapons in local and regional conflicts in which the U.S. and its allies are not initially involved could nevertheless provoke military escalation and extreme political instability, eventuating in the commitment of U.S. military forces and their exposure to CBW weapons.

Simply put, a rich nation like the U.S. should seek to maintain and strengthen the barriers against the proliferation of cheap weapons of mass destruction.

Twenty-five years ago, U.S. policy depended on possession of chemical and biological weapons as a deterrent to their use by others. At that time, the policy began to change as a result of extensive interagency study and review which concluded, among other things, that like-for-like deterrence does nothing to prevent proliferation and, if anything, encourages it.

The shift in U.S. policy became dramatically evident in 1969, when President Nixon announced unconditional U.S. renunciation of biological weapons, and in the following year when this unilateral U.S. renunciation was extended to include weapons employing toxins. The trend continued in 1975 when President Ford, having obtained the advice and consent of the Senate, ratified the 1925 Geneva Protocol prohibiting first use of chemical and biological weapons and the 1972 Biological Weapons Convention prohibiting development and possession of biological weapons. Although helping to solidify the international norm against chemical and biological weapons, neither of these earlier treaties has significant provisions for verification, sanctions, or continuous oversight.

Alerted to the continuing danger of CBW weapons by the Iran-Iraq War and the Gulf War and by subsequent discoveries in Iraq by inspectors of the UN Special Commission, the U.S. under President Bush led the multilateral negotiations in Geneva culminating in the Chemical Weapons Convention. Signed by the U.S. in January 1993, the Convention was subsequently submitted by President Clinton to the Senate.

Now, for the first time in the progression of steps to abolish the threat of CBW weapons, the Senate has before it a global treaty that prohibits development, possession and transfer of chemical weapons and includes measures for verification, penalties for non-compliance, and a standing political committee of states parties with a full-time professional technical secretariat to oversee compliance with the provisions of the treaty.

The verification provisions of the Convention, especially those for short-notice challenge inspection, are substantial and unprecedented. Considerable debate has centered on attempting to quantify their effectiveness. Some individuals with relevant experience are optimistic, others are not. Until the Convention has operated for a time, the debate is unlikely to narrow. At a minimum, the Convention's verification provisions will add significantly to the ability of U.S. intelligence agencies and the world community to detect and verify violations and to distinguish between violations and false alarms. This, together with the political and moral force of a global agreement to outlaw chemical weapons, will act to deter violations and false accusations and to break the cycle in which some nations might seek CBW weapons out of concern that others are doing so. Finally, the Convention will give the President an increased range of mechanisms and options for dealing with suspicions, allegations, and violations.

Weighed against these considerable benefits, the costs and limitations of the Convention provide no basis for withholding the advice and consent of the Senate to its ratification.

* * * * *

While strongly supporting prompt U.S. ratification of the Chemical Weapons Convention, there is an issue that gives me and many others serious concern. This is the risk of any explicit or implicit Senate endorsement of an erroneous treaty interpretation that creates a loophole for states to develop, test, produce, stockpile, and transfer chemical weapons in any quantity and of any type based on chemicals that

are temporarily disabling, either those chemicals presently used for riot control or more powerful "riot control agents" yet to emerge from the laboratory.

Some U.S. officials who have appeared before the Committee have suggested that the Convention's only restriction on "riot control agents", as that term is defined in the Convention, is that they should not be used as a method of warfare. If this claim were true, these disabling chemical weapons would be entirely exempt from the Convention's prohibitions on development, production, stockpiling and transfer. For example, states would be free to develop and accumulate stockpiles of bombs or artillery projectiles loaded with temporarily acting disabling agents, stockpiles whose only plausible use would be in war.

Indeed, large quantities of such munitions were used in WWI and were stockpiled by both sides in WWII. Riot control agents were extensively used in the Iraq-Iran War. And after the Gulf War, the U.N. Special Commission found that approximately half of Saddam Hussain's chemical arsenal consisted of large caliber mortar projectiles loaded with riot control agent CS. In war, riot control agents are used to drive personnel from protective cover into the line of ground fire or bombing, to disrupt their operations, and otherwise as multipliers of lethal force. History and common sense make it abundantly clear that riot control agents can be chemical weapons of war.

In fact, the claim that riot control agents are exempt from all parts of the Convention except its prohibition against actual use as a method of warfare is incorrect, unnecessary for preserving virtually all presently permitted U.S. uses of riot control agents, and dangerous to U.S. security.

Riot control agents are not exempt. The status of riot control agents is clearly spelled out in Article II of the Convention. They are defined as "Any chemical not listed in a schedule, which can produce rapidly in humans sensory irritation or disabling physical effects which disappear within a short time following termination of exposure." Art. II(7).

This would include, for example, the widely used irritant CS and also, if present development programs succeed, powerful opioid chemicals intended to cause temporary paralysis and other chemicals intended to cause temporary disorientation.

Every riot control agent, as defined above, is also a "toxic chemical", defined in the Convention as "Any chemical which through its chemical action on life processes can cause death, temporary incapacitation or permanent harm to humans or animals." Art. II(2).

The Convention's definition of "chemical weapons", to which its prohibitions of development, possession and transfer apply, is "Toxic chemicals and their precursors, except where intended for purposes not prohibited under this Convention, as long as the types and quantities are consistent with such purposes." Art. II(1).

It follows that the status of riot control agents, like any other toxic chemicals and munitions designed for their delivery depends on their intended purpose, so long as their types and quantities are consistent with such purpose.

The Convention's definition of chemical weapons, based on purpose rather than on the chemical identity of a substance, underlies the entire Convention. It enables the Convention to deal with dual-use chemicals and with chemicals that have not yet been discovered, protecting peaceful uses and accommodating the inevitable advance of science.

The specific inclusion of "riot control purposes" in the list of purposes permitted by the Convention underscores the fact that riot control agents are subject to the same definition of chemical weapons as any other toxic chemicals.

Virtually all presently permitted U.S. uses of riot control agents are permitted by the Convention. The Convention's list of purposes that are permitted specifically includes "Military purposes not connected with the use of chemical weapons and not dependent on the use of the toxic properties of chemicals as a method of warfare" and "Law enforcement and domestic riot control" Art II(9). Thus, the use of riot control agents for virtually all presently permitted U.S. uses is permitted under the Chemical Weapons Convention.

For a more specific analysis of permitted purposes, especially by the military, I ask permission of the Committee to include for the record, a paper entitled *Proposed Guidelines on the Status of Riot Control Agents and Other Toxic Chemicals under the Chemical Weapons Convention*. Its senior author, Professor Abram Chayes, served from 1961 to 1964 as the legal Advisor at the U.S. Department of State.

Exempting riot control agents would endanger U.S. security. To disregard the Convention's definition of chemical weapons and argue that temporarily disabling chemicals can never be chemical weapons is to forfeit the Convention's prohibitions against development, production, stockpiling and transfer of weapons based on present and powerful future disabling chemical. With respect to such weapons, the effect of the Convention would then be reduced to that of the 1925 Geneva Protocol,

which prohibited only actual use in war, but not development, possession and transfer and under which many states have stockpiled chemical weapons. Such an outcome poses the danger of a partial return to the mutual suspicion that drove chemical weapons acquisition before the Convention.

In its report to the full Senate, it is greatly to be hoped that the Committee, while noting the specific inclusion of "law enforcement and domestic riot control" among purposes permitted by the Convention, will give no support to any exemption of riot control agents from the Convention's prohibitions. The United States should not permit exceptions that might erode the norm against CBW that it seeks to establish through the Convention.

[The paper referred to may be found in committee files.]

The CHAIRMAN. Without objection.

STATEMENT OF THE HONORABLE MICHAEL MOODIE, PRESIDENT, CHEMICAL & BIOLOGICAL ARMS CONTROL INSTITUTE, ALEXANDRIA, VA

Mr. MOODIE. Thank you very much, Mr. Chairman.

I have a written statement that I would like to introduce for the record. And with your permission, use my 6 minutes to summarize that statement.

The CHAIRMAN. Thank you very much. That will be done without objection.

Mr. MOODIE. Thank you, Mr. Chairman. I appreciate the opportunity to appear before the committee with respect to the ratification of the Chemical Weapons Convention.

Let me be clear at the outset: despite its shortcomings, the Chemical Weapons Convention should be fully supported. I say that not as a participant who was deeply engaged in the closing phases of the negotiation, and whose bureau at the Arms Control and Disarmament Agency had the interagency lead in those negotiations, but on the merits of the Convention itself.

My view is that one can go beyond the argument that the world is better off with the treaty than without it, which is true, but nevertheless, smacks of damning with faint praise. Indeed, a more robust case in favor of the Convention can be made.

The case for the CWC begins with the appreciation that arms control is a tool of policy not an end in itself. No one should expect that any single arms control agreement can totally solve a particular set of problems. It is only one of many tools needed to meet a given set of objectives.

This sense that arms control must work in harmony with other policy tools is especially important in discussing CWC ratification because, in the process of that discussion, there is a temptation to focus single-mindedly on the arms control instrument itself.

Yielding to that temptation creates expectations of the agreement that it was never intended to meet and ignores the other policy measures that can and must be pursued.

Ratification and entry into force of the CWC will not remove our concern over chemical weapons proliferation, but having the treaty in place contributes to U.S. security interests in four ways.

First, the CWC establishes an international norm. With more than 150 signatories, the CWC represents a globally embraced political standard against which the behavior of states and the international community can be measured and held accountable.

Second, the CWC creates an important legal regime. Without the treaty, there are no legal prohibitions against such activities as de-

velopment, storage, and transfer of chemical weapons. And there is no basis on which to act should they occur.

To say that murder is bad is a moral judgment. But it is only when a law is enacted that says murder is a crime that society can respond, including with coercion, against a perpetrator.

By criminalizing all of the activities associated with procuring chemical weapons, the CWC provides an indisputable, concrete basis for action by the international community.

In addition, the CWC represents a means to mobilize the international community. It creates not only additional instruments, but additional allies who have a stake in the regime and strong reasons for keeping it intact.

Fourth, the CWC poses a deterrent. The treaty increases the risk that a state seeking to develop chemical weapons will be caught.

And it would force the CW proliferant to more circuitous paths that are more difficult, more costly, more complex, and arguably more detectable over time.

The value of the CWC is illuminated further in addressing some misconceptions that have emerged from commentary on the treaty.

First, not all holdouts to signing the treaty are doing so for the same reason. And not all of them are likely to remain outside the treaty in perpetuity.

As the NPT demonstrated, adherence increases over time, as politics and cost-benefit calculations change.

Second, just as some holdouts must be anticipated, some violation of the CWC must be expected. To pose a danger to U.S. interests, however, a cheater's CW capabilities must be militarily significant.

CW programs of military significance to the United States, however, are a function of many factors, some of which should be detectable.

Less detectable programs, while not militarily inconsequential, should be manageable through chemical defensive programs. This is an example, to me, of how the CWC and other policy instruments can and must work together.

The CWC narrows the problems to a range within which other policy tools can be brought to be effectively.

Third, a chemical retaliatory capability may be useful in some theoretical scenarios, but they are likely to be marginal, especially in light of the overwhelming conventional power the United States can bring to bear against an adversary.

Moreover, even if the United States retained chemical weapons, it is questionable whether the U.S. leadership would ever make the political decision to use them, particularly given available conventional options.

Additionally, a number of points should be made in response to the misconception that the CWC is not effectively verifiable.

I would like to limit myself here to the observation that verification is not a mechanistic cut and dried process that leads to unambiguous evidence of noncompliance.

Rather, judgments regarding noncompliance are based on a mosaic of evidence created over time from a range of activities, including multiple inspections, interviews, evaluations, and nontreaty related inputs.

The CWC's verification provisions create critical opportunities for forming such a mosaic, and noting quickly when particular pieces do not seem to fit, prompting further scrutiny.

Finally, Mr. Chairman, if the CWC is to constitute an effective instrument of national policy, Congress and the executive branch must continue to address several concerns.

In my testimony, I address several of these. I would just like to highlight two of them. One, sustaining other aspects of CW non-proliferation policy is critical.

Like others on this panel, I believe that the CWC does not obviate the need for a robust chemical defense program, including active defenses.

National intelligence remains crucial in meeting the chemical weapons challenge.

A third critical area that must receive continued attention is conventional capabilities. From my view, it is conventional preponderance, together with credible, protective measures and active defense capabilities that are more likely to be of far greater importance in defining the scope and intensity of the future CW threat than cheating under the CWC.

Two, an important concern must be the question of what states parties will do in the event they are confronted, as they undoubtedly will be, with noncompliance. With a state's sovereign right to make decisions regarding compliance comes the responsibility of a state party to know what it will do if violations are detected.

Past experience has demonstrated how contentious the issue of possible treaty violations can be, even among close friends and allies.

Ultimately, the willingness of states parties to act in the face of noncompliance, more than the sophistication of the CWC's inspection provisions, or the extent of its data reporting requirements will determine the Convention's effectiveness.

If the political will does not exist to make these agreements important policy instruments, they are not worth the paper on which they are written. If the political commitment to action is absent, all of the inspections they mandate are so much unproductive frenzy.

And if the political strength to take on those who will not abide by the rules has vanished, then the penalties have the impact of a mosquito—inconvenient and irritating perhaps, but no deterrent.

Thank you very much.

The CHAIRMAN. Thank you very much indeed.

[The prepared statement of Mr. Moodie follows:]

PREPARED STATEMENT OF MR. MOODIE

Mr. Chairman, I would like to thank the Committee for this opportunity to testify in your series of hearings regarding ratification of the Chemical Weapons Convention (CWC).

Mr. Chairman, the Chemical Weapons Convention represents a compromise among the interests, concerns, capabilities, and approaches of thirty-nine sovereign countries, each of which took part in the talks at the Conference on Disarmament in Geneva that produced the treaty. As a compromise, it is not perfect, and no one should expect it to be. The CWC does not contain all the positions the United States would have preferred. Some of its provisions are not expressed in the form Washington would have most liked. A similar view would probably hold for each of the other thirty-eight participants as well.

Despite its shortcomings, the CWC should be fully supported. In arguing for ratification of the Convention, my view is that one can go beyond the argument that the

world is better off with it than without it, which is true but nevertheless smacks of damning with faint praise. Indeed, a more robust case in favor of the convention can be made.

ARMS CONTROL AS A MEANS NOT AN END; A TOOL, NOT AN OBJECTIVE

The case for the CWC begins with an appreciation of the role of arms control as a means of policy, not an end in itself. Arms control is a tool of policy to be used in the service of national security interests. As such, arms control is not a panacea, and no one should expect that arms control alone—or any single arms control agreement—can totally solve a particular set of problems. It is only one of many tools that must be used to meet a given set of objectives. This sense that arms control must work in harmony with other policy tools is especially important in discussing CWC ratification because in the process of that discussion, there is a temptation to focus single-mindedly on arms control alone. Yielding to that temptation creates expectations of the agreement that it was never intended to meet and ignores the other policy measures that can and must be pursued to end the scourge of chemical weapons.

Ratification and entry into force of the Chemical Weapons Convention will not remove the U.S. concern over chemical weapons proliferation. Having the treaty in place, however, makes our ability to deal with those concerns less difficult, especially when one considers the alternatives (or lack thereof). In particular, it adds to our arsenal of measures capable of deterring untoward developments before they occur, exerting pressures, imposing risks and costs, and exploiting other means of dealing with difficult situations as they unfold, and responding to them forcefully if such developments pose a grave risk.

The issue is not, as some analysts would have it, is the CWC verifiable? Rather, the most important question is: Can the treaty help the United States pursue its security objectives? In my view, the answer is clearly yes.

THE CONTRIBUTION OF THE CWC

The CWC contributes to U.S. security interests—both the narrow interest of promoting chemical weapons disarmament and halting its proliferation and broader U.S. nonproliferation objectives—in four ways.

First, the CWC establishes a global norm.—With more than 150 signatories, the CWC represents a norm against the existence of chemical weapons that is globally embraced, and it provides the political standard against which the behavior of states in the international community can be measured. By not measuring up to this standard, a state puts at risk its possibility for integration into that global community, and it denies to those who choose the path of proliferation the benefits of membership in that community.

Second, the CWC creates an important legal regime.—The CWC creates a legal standard that does not now exist. Indeed, the current international legal regime against chemical weapons—including the 1925 Geneva Protocol—implicitly legitimizes the possession of chemical weapons capabilities and even their use in some cases, according to the reservations states have adopted regarding the right to retaliate in kind to CW use. The CWC makes not only use but possession and a range of other activities—development, production, storage, and transfer—illegal. Without the treaty, not only is there no prohibition against such activities, but there is no basis on which to take action should they occur. To say that murder is bad is a moral judgment, but it is only when a law is enacted that says murder is a crime that society can respond, including with coercion, against a perpetrator. By criminalizing all of the activities associated with procuring chemical weapons, the CWC codifies an otherwise nebulous international norm and provides an indisputable, concrete basis for action by the international community if it chooses to do so.

Third, the CWC represents a lever to mobilize the international community.—The CWC creates not only additional instruments for addressing the chemical weapons problem, but additional allies who can be mobilized in the face of a serious chemical weapons threat. Through the provisions on assistance—both security assistance to those who might be the targets of CW use or CW threats as well as technical assistance to promote commercial chemical activity—the CWC gives states a stake in the regime and strong reasons for keeping it intact.

Fourth, the CWC poses a deterrent.—The CWC increases the risk that a state seeking to develop chemical weapons will be caught by denying it the most obvious routes to acquiring a chemical weapons capability. Those routes—eg., placing a covert CW facility in the midst of an existing commercial chemical enterprise—will be covered by the treaty's verification activities. The CWC, therefore, will force a CW proliferant along more circuitous paths to its ultimate objective, paths that are more

difficult, more costly, more complex, and arguably more visible and more detectable over time. At present, no deterrent exists to taking a CW program to the point just short of actual use.

CLARIFYING SOME MISCONCEPTIONS

The value of the Chemical Weapons Convention is illuminated further in addressing some misconceptions that have emerged from commentary on the treaty.

Misconception 1: Adherence to the CWC Will Not Be universal, and Some Who Ratify Will Cheat

That not all members of the international community will sign the CWC and that some of those who do may not abide by their obligations are facts of international life. While these assertions may be true, in and of themselves they are not necessarily reasons to reject the treaty.

First, not all holdouts to signing the treaty are doing so for the same reason. Some may indeed be seeking a CW capability and do not want to have their options closed out by joining the Convention. One could argue that the countries of most serious concern with respect to CW—Iraq, Libya, North Korea—fall into this category. Other holdouts, however, may have different reasons for doing so. Egypt, for example, as well as some other Arab states, have not signed because they believe it gives them some bargaining leverage in the ongoing Middle East negotiations. Cairo has argued that it will not sign the CWC until Israel makes a move of some kind toward adherence to the nuclear Nonproliferation Treaty (NPT). Other states may just be adopting a wait and see attitude, looking to the success and speed of putting the new agreement into place before acting.

The different reasons that states may currently be holdouts in the CWC process suggest that not all of them will remain outside the treaty in perpetuity. As the NPT demonstrated, adherence increases over time as politics and cost-benefit calculations change. The entry into force of the CWC itself will change the context within which states make their decisions regarding adherence. For some states, the tangible benefits of membership could ultimately override their current political decision to remain outside the regime. For others, the prospect of concrete penalties may have a similar impact.

It must be recognized, however, that even as adherence progresses toward universality, not all states are likely to join the Convention. Is this sufficient reason for the United States not to join the Convention? In light of the treaty's benefits, the answer is no, particularly in light of the fact that the CWC itself will help to limit the number of problem cases, and help to bring the CW proliferation problem down to more manageable proportions.

If holdouts do not provide sufficient reason to withhold support for the CWC, what about cheaters? Just as some holdouts must be anticipated, some violation of the CWC must be expected. If it were not a possibility, then there would be no need for the elaborate verification measures that have been designed.

Why should we be concerned about cheaters? In short, they represent a potential problem because their CW capabilities could pose a threat to U.S. military operations in support of our interests overseas. To pose such a danger, however, those CW capabilities must be militarily significant. Military significance is in part a function of the quantity of toxic agent available. The amount of agent that must be used to have a significant impact on the battlefield, however, is often underestimated. One analysis, for example, argued that Iraq might have had 2,000 tons of chemical agent, which translates roughly into 500,000 artillery rounds. Such stocks are not sufficient to sustain a protracted conflict. The problem of limited supply is important because offensive chemical warfare requires the use of large amounts of agent; contaminated targets must be reattacked steadily.

CW programs of military significance to the United States, of course, are a function of many factors other than just the amount of agent. Analysts such as Brad Roberts argue that with the CWC in place, these activities—stockpiling agent over long periods, utilizing advanced delivery systems, and so on—which together might create a problem for the United States should be detectable.

Less detectable programs, while not militarily inconsequential, should be manageable through chemical defense programs. This is an example of how the CWC and other policy instruments can and must work together. The CWC narrows the problems to a range within which other tools, such as defensive programs, can be effective. It also highlights the sometimes overlooked fact that, unlike nuclear weapons, the impact of CW can be diminished through defensive programs. Understanding that the United States and others have continued their commitment to adequate defense capabilities could be an important factor in the calculations of a potential CW proliferator about choosing the CW path.

Misconception 2: By Foregoing Chemical Deterrence in Kind, the United States Will Deny Itself an Important Policy Option

A chemical retaliatory capability may indeed be useful in some theoretical scenarios, but they are likely to be marginal, especially in light of the overwhelming conventional power the United States can bring to bear against an adversary. As Victor Utgoff of the Institute for Defense Analyses argues, "the United States and its allies have such overwhelming military power that, even without offensive CW capabilities, they can match or exceed any level of violence that a CW-armed state could offer." Moreover, even if the United States retained chemical weapons, it is questionable whether the U.S. leadership would make the political decision to use them, particularly given available conventional options.

It has sometimes been argued that Saddam Hussein's reluctance to use his CW stocks was a result of the ambiguous nature of the promised U.S. response in the event of such use. U.S. spokesmen were not specific about how they would respond, implying any measure, including chemical retaliation, was possible. No one can be certain why the Iraqi leader did not use his CW, but his concern over possible chemical retaliation is not the only answer. Some commentators argue that his principal delivery systems—aircraft—were destroyed. Others suggest that Iraqi troops were equally if not more vulnerable to CW given their poor defensive equipment and prevailing winds. Still others propose that Iraq was unable to deliver its CW stocks to forward commanders. Finally, the ambiguous nature of the certain U.S. response to CW use also included the prospect of nuclear or conventional options. Saddam ultimately may have decided that using CW would have changed the character of the coalition's war aims from removing Iraq from Kuwait to eliminating the Iraqi regime. At least some of these explanations have an equal if not greater value in elucidating Saddam Hussein's decision not to use CW than the prospect of chemical retaliation.

Misconception 3: The CWC is Not Verifiable

This contention arises perhaps out of a misconception of verification. Three points should be made in response. First, verification is not a mechanistic, cut and dried process that produces unambiguous evidence of noncompliance. As other elements of arms control, verification is at its core a political process. It is a process of making judgments about information not in isolation, but in a context. The information itself is not generated by treaty-related activities alone, but by a range of sources, including national means—technical and otherwise. A single inspection indeed may not uncover a "smoking gun" to confirm conclusively a cheater's noncompliance. This does not mean that the treaty is ineffective, however. Rather, judgments regarding noncompliance are formed on the basis of a mosaic of evidence created over time from a range of activities including multiple inspections, interviews, evaluations, and non-treaty related inputs. The CWC's verification provisions create critical opportunities for forming such a mosaic and noting quickly when particular pieces do not seem to fit, prompting yet further scrutiny.

Second, verification is not synonymous with monitoring. The task of monitoring the evolution of CW programs will be a challenge for the intelligence community whether there is a CWC or not. The CWC, however, will supplement national capabilities, not diminish them. In particular, it will generate more data from more sources, some of which our intelligence may not be able to secure through national means.

Third, the number of activities prohibited by the CWC are not drawbacks to the treaty but verification opportunities. Development of a CW program includes many stages—research, development, production (somewhere), agent storage (either in bulk or weaponized), filling munitions, incorporation into offensive military doctrine, and training. Some of these activities are more detectable than others. By including all of them in its ban, the CWC creates opportunities to identify a range of possible irregularities in a state's behavior. If one piece of the mosaic does not seem to fit, then other pieces can also be more closely examined for corroborative evidence.

Finally; how important are the admitted shortcomings of the CWC's verification regime? In addition to the points already made about military significance, there are at least two mitigating considerations. First, CWC verification must be judged not only against a standard of detection, but of deterrence. The CWC will raise the costs to potential proliferators. It also enhances the prospect of detecting militarily significant programs. Together these factors bolster deterrence. Second, some limits to intrusiveness are needed to protect both national security and proprietary business information. During the talks the United States negotiated hard for a balanced approach, against those who wanted either unfettered access that would put such information at risk or those who preferred a greatly more restrictive approach. Such a balance has been achieved.

ONGOING CONCERNS

If the CWC is to constitute an effective instrument of national policy, the Congress and the Executive Branch must still address several concerns.

First, because the CWC is an arms control agreement that eliminates a category of weapons, CW destruction must be a central consideration. As the possessors of the world's largest stocks of chemical weapons, Russia and the United States have the greatest responsibility for CW destruction, a special responsibility acknowledged by Presidents Clinton and Yeltsin at their January summit.

Meeting the destruction schedule laid out in the CWC will be a major challenge. Major political, environmental, and economic barriers lie ahead. If the destruction effort does not keep pace with implementation of other provisions of the CWC, however, the credibility of the entire Convention will be undermined.

A second question is the relationship between the CWC and other aspects of CW nonproliferation policy. It is the contention of some analysts that it is not only a possibility but a likelihood that, following CWC ratification, the U.S. will "overcomply" by setting aside its defensive programs as a consequence of insufficient funding. If correct, this observation is disturbing. The CWC will not obviate the need for a **robust chemical defense program** which must be retained as a hedge against the uncertainties of noncompliance.

Pursuit of defense programs should not be limited to passive measures. The extent to which the United States can defend against a range of advanced delivery vehicles will also bolster the web of deterrence against CW proliferation. For this reason, efforts to explore **theater missile defense** should be continued.

National intelligence also remains crucial in meeting the chemical weapons challenge. With the CWC in place, national intelligence capabilities can reinforce and help direct inspections and provide an additional flow of information for developing the behavioral mosaic on which to base compliance judgments.

A third critical area that must receive continued attention is **conventional capabilities**. Conventional preponderance, together with credible protective measures and active defense capabilities, are likely to be of far greater importance in defining the scope and intensity of the future CW threat than cheating under the CWC.

Another issue that must be addressed relates to assistance to a state that is subject to a CW attack or threat. This question of assistance—what the U.S. or others will provide, when, and under what conditions—requires more detailed and systematic attention by all of the signatories.

So, too, does the problem of allegations of use. The bulk of the verification regime is directed toward detecting nonproduction of chemical weapons. That is as it should be given the open-ended nature of the Convention. Recent experience has demonstrated, however, that evidence regarding alleged use of chemical weapons is often ambiguous. From the initial moment of entry into force, the parties to the Convention must do whatever is necessary to bolster confidence that the Convention's provisions for investigating allegations of use will be rapidly exploited to minimize that ambiguity.

Finally, an important concern must be the question of what states parties will do in the event they are confronted—as they undoubtedly will be—with noncompliance. The United States insisted during the negotiations that the decision determining a state's compliance was a sovereign right of individual state parties. With that right, however, comes the responsibility of a state party to know what it will do if violations are detected. These sound like easy judgments, but they are not. Past experience has demonstrated how contentious the issue of possible treaty violations can be even among close friends and allies.

Ultimately, the willingness of states parties to act in the face of noncompliance, more than the sophistication of its inspection provisions or the extent of its data reporting requirements, will determine the CWC's effectiveness. If the political will does not exist to make these agreements important instruments of international policy, they are not worth the paper on which they are written. If the political commitment to action is absent, all of the inspections they mandate are so much unproductive frenzy. If the political strength to take on those who will not abide by the rules has vanished, the penalties have the impact of a mosquito—inconvenient and irritating perhaps but no deterrent.

The Chemical Weapons Convention addresses an immediate challenge, but it also influences significantly the longer-term arms control and nonproliferation agenda. While pushing forward assertively with ratification and implementation, the international community must be fully mindful that whatever its specific provisions, political determination and a commitment to action are the truly vital keys to ensuring its long-term effectiveness.

The CHAIRMAN. Due to the pressures of time, I will resist of asking any questions. I will turn to my colleague, Senator Lugar, and ask him if he has any comments or questions.

Senator LUGAR. Yes, Mr. Chairman. [Pause.]

I have a series of areas. First of all, I would like to ask for a comment by any of the panel on the retaliatory capability issue.

Let me phrase it this way: Having renounced chemical warfare, even as a means of retaliation, how will the United States deal with the risk that a nonparty or violator might use chemical warfare against the United States?

Ms. HOEBER. Senator, can I try to address that since I spent lot of time working with the military on this issue?

I think in the absence of a chemical retaliatory capability, we have relatively few alternatives. We have to hope that the situation is such that an overwhelming conventional capability is viewed as an adequate response.

And the President always has, of course, the option to escalate to nuclear, but I would hope that that would not be amongst the seriously considered options, but I think that there is nothing that can substitute for retaliation in kind.

If you look historically, there has never been a first use against a country that had a retaliation in kind capability. And I think we should learn from that.

Dr. MESELSON. Senator, should I respond?

Senator LUGAR. Please.

Dr. MESELSON. There has also never been a case of a first use against a force that has good gas masks and training. And that is a far larger number of cases.

The presence of toxic agents might cause soldiers to put on gas masks during the period of immediate threat to keep fighting. I do not see why, in response to any particular action of an enemy, one has to do anything that is exactly parallel to their action.

The United States has overwhelming conventional superiority. We should maintain it. The United States has excellent chemical defense. We should maintain and improve it. I do not see a scenario in which we would not be able to keep fighting and win, even if we were attacked with chemicals.

The real problem with a policy of retaliation in kind is it does nothing to deal with the problem of proliferation. Nothing. In fact, it aggravates it. That is its real problem.

If we have chemical weapons, every other country is free to do the same. And that is the situation we do not want, particularly when it gets popular even among dissident forces, terrorists, irresponsible states.

And the extension to biological weapons, because these things do have many elements in common, chemical and biological, is something we should be very careful to avoid. And one way to do that is to stop proliferation at the root. This treaty helps do that.

Senator LUGAR. Ms. Hoeber's point was that retaliation in kind can stop the use by an adversary of chemical warfare to begin with.

Ms. HOEBER. I think it certainly would. If chemical weapons are even threatened against our forces, we had to suit up and put on gas masks and use anecdotes and so forth.

This was seen in Desert Storm, where we have to be prepared to cope with it. And as the threat gets more and more focused on our forces, it reduces the capabilities.

Now in Desert Storm, we had an overwhelming superiority. In another conflict, we might not.

Let us look at North Korea. I would hate to see our forces having to operate in full protective gear in North Korea just because of a threat, and not have the option to impose that same threat on the other side.

Mr. MOODIE. I do not think, Senator, that you can draw a one-to-one relationship between the threat of retaliation of a particular type and the behavior of a state.

I think that what the nature of the response for which the United States should be planning is one that combines the tools that Dr. Meselson talked about, on one hand keeping our conventional capabilities such that they represent overwhelming power in all situations in which we have to use it: military options to pursue our interest.

Second, though, it also includes an active defense program that, in my view at least, would include not only passive defense, including gas masks and the suits and so on, but an aggressive examination or active defense against the kinds of delivery vehicles that might be used in particular conflicts. And that includes theater missile defense.

Some people have suggested, and I have heard the argument made on occasion, that a big question about the operation in Iraq was why Saddam Hussein did not use chemical weapons that he obviously had.

And some people have suggested that, while the United States promised a response if he did, the nature of the response was ambiguous and implied, perhaps, even a chemical retaliation in kind.

I think there are other equally good explanations to explain Saddam Hussein's inaction. Some people have also argued that his major delivery vehicles, aircraft, were put out of commission.

Others have suggested that Iraq's forces were more vulnerable to their own CW because of the prevailing winds, and their poor defensive capabilities.

There is also the question of his difficulty getting those chemical stocks to his forward commanders.

And finally, there is the question that—the calculation could have been that by using CW he would have changed the coalition's warrant from getting Iraq out of Kuwait to getting Saddam Hussein out of Baghdad.

Now, it seems to me that those explanations carry equally if not greater weight to explain his reluctance to use chemical weapons than the prospect of retaliation in kind.

Senator LUGAR. Thank you. Let me move to another area if I might for testimony. Can the stockpiles be destroyed safely?

The Army reported to the Congress on its consideration of the National Research Council's recommendation on alternative technologies for the destruction of chemical weapons.

The Army concluded that the baseline incineration destruction process is safe and effective. It also agreed that the risk from con-

tinued storage of the stockpile outweighed the potential risk of incineration.

The basic judgment is that the risks of delaying destruction of an aging stockpile by incineration are greatly less than the advantages that might possibly be gained by waiting for other technologies to be proven and made practically available.

Ms. HOEBER. Absolutely. No. Absolutely, they can be destroyed safely. I am one of the people that funded the Johnson Island Program.

I have been involved in the Chemical V-Mail Program, both stockpile and nonstockpile for nigh onto 20 years now. The current incineration baseline process works. And it works safely.

There was a recommendation made by the National Academy to add one additional bag house to the end of the affluent stack in order to insure an even further safety for the stuff that comes out of the smokestack. That was not necessary.

We had passed to the, I think seven nines in the calculation of how pure we could get the air, probably purer than most of the air around most of the facilities today.

The additional bag house is being put in by the Army. Johnson Island has worked and worked very well.

The Tooele Facility is currently undergoing final testing. There is a considerable amount of concern about the viability of the M-55 rockets in the storage sites. These are very old, like about 40 years or so. The propellant has a stabilizer in it which is degrading over time.

There is a significant possibility that sooner or later one of them blows up. No one can tell how long this will be. Clearly, it is not imminent.

But certainly, in a not unreasonable timeframe there is going to be a problem. I could expound on this longer, but I am not sure that this is the relevant forum.

Dr. MESELSON. Senator, I served on the first National Academy of Sciences panel to deal with chemical weapons disposal in 1970. I was on the academy's alternatives committee last year. And I agree with essentially everything that Amoretta Hoeber has just said about this subject.

Ms. HOEBER. When Matt and I agree, something has got to be occurring there.

Senator LUGAR. Can the United States protect the privacy of its people and businesses and its national security information and industrial technology from compromise through the CWC verification system?

And more specifically, are you comfortable with the protection provided with respect to challenge inspections? What is your understanding of the meaning of the term "managed access" with respect to the nature and extent of intrusion within an inspection site?

Dr. Carpenter, you suggested in your testimony that you are comfortable with all of the above.

Dr. CARPENTER. A number of years ago, the U.S. chemical industry pulled together the European, Japanese, Australian, Canadian chemical industry trade associations as well.

We collectively and individually addressed the issue of protection of this information with our respective government delegations and

this group of industry. And as a result of that, a substantial part of the language that is in the Convention came directly from industry.

So the foundation is laid so that the information can be protected. That has to be further implemented in the national legislation and the regulations that flow from that to insure that that protection continues.

I might add that despite what you might hear, the risk of loss of information by industry is far greater in the reporting requirements that we have, and that flow of information going in, than it is from the inspections.

The number of inspections are such, particularly challenge inspections, that we can expect in industry are so few compared to the literally thousands of documents that are going to flow in in the reporting system, that it is a concern, more so in the reporting than in the inspections.

When you look at the probability of a country trying to get information through an inspector, arranging for an inspection, go to that site, arrange for the inspector to get to that particular point in the facility that is his point of interest.

The probabilities are such that the country would be much better off to send some spies or industrial espionage agents directly into the site, and do it by conventional means rather than going through this elaborate procedure.

So it is the data submission that is the watch-out. But I must say that in the national implementing legislation that we have seen just recently, it looks like it is being properly addressed.

Mr. MOODIE. Senator, I would note that during the negotiations, the United States and a variety of other participants conducted a number of trial inspections of various kinds, both in government facilities and at commercial industries, chemical and otherwise.

And the point that came out of that, or one of the points that came out of that was that different facilities have different kinds of problems. And that you cannot generalize across facilities and argue that this is a general problem.

Just as they have particular problems, they can design particular solutions to those specific problems. And as the U.S. Government has looked at the variety of highly sensitive, national security sites that conceivably could be the subject of a challenge inspection, they are in the midst of planning how they would deal with those inspections to safeguard the security of the information that otherwise might become available.

What this also suggests is a degree of preparation on the part of both government and the industry. Certainly, government is very much in the process of going through and looking at their sites and deciding how to handle the challenge inspection should it occur.

The government is currently reaching out to industry to explain the obligations that it will assume under the convention, and to help them prepare for that.

I think that the key, in my view, to assuring that information, either of national security or commercial proprietary type, will not be lost is proper preparation.

And I think that we have this period before entering the phase to begin that. And I think that the more aggressively the govern-

ment pursues it, the more aggressively industry pursues it, the better off we will all be.

Senator LUGAR. I have just one final question. And that is with respect to protection of American troops. The Department of Defense indicated it will maintain a robust chemical defense capability supported by aggressive intelligence collection efforts.

Article X of the Convention expressly recognizes the need for states parties to continue with chemical weapons defensive programs.

And article II includes, in its definition of purposes not prohibited—purposes for the protection against chemical weapons. But the Convention also subjects these programs to monitoring and verification to insure that such activities do not mask defensive programs.

My question to you is: What kinds of aggressive intelligence collection efforts do you believe are essential to complement a chemical defense capability?

And do you believe that the U.S. intelligence community has the capability to detect whether the defensive programs of other countries are masking offensive programs?

Ms. HOEBER. I would prefer not to address that, sir. I think that will be covered by one of the later witnesses much better.

Senator LUGAR. All right.

Mr. MOODIE. Senator, if I might, I, too, am reluctant to speak to the specific capabilities of the intelligence community. But I think the point should be made that that requirement is going to exist for the intelligence community whether the CWC is in force or not.

And that kind of a monitoring of the evolution of the CW proliferation problem, in my view, having the CWC, in fact, helps them, because it will provide to the intelligence community more data from more sources, some of which it may not have access to otherwise.

Senator LUGAR. Thank you.

Dr. MESELSON. I would like to add to this list of tasks that intelligence has the task of detecting false claims and false allegations. They can be very disruptive.

The United States has been accused on various occasions, of waging, in the case of Korea, the Korean war, biological warfare.

This kind of false accusation stimulates countries to develop programs of their own because of fear that they might be left behind. So while it is important to detect violations, it is also important to distinguish between true and false allegations.

Thank you.

Senator LUGAR. Thank you very much.

The CHAIRMAN. Thank you very much. Thank you panelists for being with us. And I apologize for the abbreviation of the hearing. We will now continue with panel No. 2.

**STATEMENT OF THE HONORABLE RONALD F. LEHMAN,
FORMER DIRECTOR, ARMS CONTROL AND DISARMAMENT
AGENCY, LIVERMORE, CA**

Mr. LEHMAN. Thank you, Mr. Chairman, Senator Lugar.

I was in Islamabad, Pakistan, last week when I received the invitation to appear again before the committee. I am very honored to be back before you.

I am particularly pleased to be with some of my distinguished colleagues and good friends from the Reagan and Bush administrations who made so many contributions to the arms control and national security revolution of that period. And it is in that same public spirit that they are here today, whether they support or are opposed to the treaty.

Let me say that I am one of those people who believes that the better is not the enemy of the good in arms control. In fact, arms control's best friends are those who have demanded the highest standards. And some of those people are here today.

Let me say, also, that we negotiators always felt that our position was much stronger because we knew that one-third of the Senate plus one could decide to reject what we had done.

So the contributions of this committee and other Members of the Senate have been very important to achieving those arms control successes.

Let me state clearly that I am speaking here today as a private citizen. I do not represent the views of any particular administration or institution. But also, let me make very clear what my position is. I urge this committee and the Senate to give its consent to the ratification of the Chemical Weapons Convention.

I know my time is short. And I will not repeat all of the many arguments that have already been made on behalf of the Convention.

I would like to highlight a few points because I think it is important to understand that, in the end, this treaty should be considered on its merits. And I support it for that reason and not because I was involved in its negotiation.

The CHAIRMAN. I would add here that the full text of the statements of any of the witnesses will appear in the record as if read.

Mr. LEHMAN. I thank you, Mr. Chairman. In that statement, for the record, I highlight a number of points which I will not elaborate in detail now.

Among them are that are arms control initiatives including our approach to negotiations in the Chemical Weapons Convention were part of a bigger strategy which, actually, contributed to the winning of the cold war.

I think it is also important to understand that in negotiating the Chemical Weapons Convention, we took an innovative and step-by-step approach to the negotiations in which we often demanded more in order that we would get more.

And let me say that at every point in the negotiation, we gained additional leverage because we made it absolutely clear that if we could not negotiate provisions that were in the national security interests of the United States, we were prepared to walk away from the negotiations. We take it seriously.

The negotiation of the Chemical Weapons Convention was a significant event, especially in the twilight of the cold war. Arguably, the Chemical Weapons Convention is more important in today's violent and changing world than it was when it was negotiated during the cold war.

With the end of the Warsaw Pact, America's sole superpower status faces changing global missions. And its advanced conventional munitions have reduced the circumstances under which the United States would decide to deploy chemical weapons in an operational theater as a deterrent.

Increasingly, circumstances are such that it is more important to reduce the likelihood that others will use them than that we have them.

The Chemical Weapons Convention plays an essential role in our efforts to curb the proliferation of weapons of mass destruction and their means of delivery.

In the long run, our nonproliferation, counterproliferation, or antiproliferation efforts may be doomed to failure if we cannot bring about political change and greater stability around the globe. As I have suggested, the CWC continues to be a small, but important part of that effort.

In the near term, however, the CWC may actually play its most important role. We will fall dangerously short in our efforts to stop the proliferation of more destructive nuclear and biological weapons if we cannot even codify and build upon the international norms which emerged in the negotiation of the ban on chemical weapons.

At a time when we must build support for long-term monitoring of Iraq and special inspections by the IAEA in North Korea and elsewhere, entry into force of the Chemical Weapons Convention will commit ever more of the international community to the unprecedented openness increasingly necessary if we are to prevent disaster.

At a time when the global economy reduces trade barriers, but also undermines controls on proliferation-related technologies, the CWC codifies the principal that no nation should trade in dangerous materials with those who will not accept international non-proliferation norms.

At a time when threats to international security may require military forces of the United States to be deployed within range of the weapons of outlaw regimes, the CWC can reduce the dangers our troops will face and help provide the basis in international law and public opinion for strong measures that we and others may be forced to take.

Mr. Chairman, I will not go on with my opening remarks. Let me simply highlight the importance of understanding that arms control is but a tool that we can use to further our national security interests.

And let me suggest that if we do not continue to use it to promote our national security interests, there are nations around the world which will use it against our national security interests.

We have to be aggressive in this matter in promoting our national security. Can arms control carry with it the risk that we will be lulled into neglecting our defenses? Unfortunately, the history of that is quite clear.

We, too often, have neglected our defenses. The Biological Weapons Convention has been mentioned correctly as an example. And indeed, unfortunately, because we have negotiated arms control

agreements, we have often, in the case of violations refused to see what was so. Sverdlovsk comes to mind.

But it is within our power to correct those deficiencies if the American people have the facts. I see this hearing as a way to get the facts out.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much, indeed.

[The prepared statement of Mr. Lehman follows:]

PREPARED STATEMENT OF MR. LEHMAN

Mr. Chairman, Distinguished Members of this Committee. In Islamabad, Pakistan, last week, I received your invitation to appear before the Committee to discuss ratification of the Chemical Weapons Convention. It was an honor to be asked to appear before you once again, and I am particularly pleased to join several close and valued friends who made major contributions to the revolutionary national security and arms control achievements which took place during the Reagan and Bush administrations. It is in that same spirit of public service that they are here today.

The best friends of real arms control are those who have demanded the highest standards. Better is not really the enemy of the good. In particular, the U.S. negotiating position is always strengthened when we negotiators are reminded that one-third of the Senate plus one might someday decide that the treaty we conclude falls short of their expectations for advancing the national interest.

During the negotiation of the Chemical Weapons Convention, I and others consulted regularly with members of the United States Congress including the members of this Committee. We sought your advice on how to negotiate the best possible treaty. A process of consultation, however, must never substitute for a rigorous examination of the final product such as is now underway, taking into account the contributions of critics as well as proponents.

For my part, I am a proponent. I speak today as a private citizen; the views I express are my own and not necessarily those of any institution or administration. Let me make clear up front where I stand. I urge the Senate to give its consent to the ratification of the Chemical Weapons Convention and to move quickly to complete a process of careful deliberation. I say this, not because of my personal involvement in its negotiation, but on its merits. I won't repeat the many arguments which have already been made on behalf of the Treaty, but I would like to present a few additional considerations.

The negotiation and completion of the Chemical Weapons Convention in the twilight of the Cold War was a valuable element in a bigger, balanced strategy to increase the security of the United States and to promote political change around the world. We negotiated from a position of economic, political, and military strength. We energized our technology and economy, while reducing subsidies to the Communist bloc. We recognized the "evil empire" for what it was and rejected attitudes of "moral equivalence", which undermine our resolve and strengthen our adversary. We modernized our defenses, including our chemical weapons deterrent, even as we made arms control an integral part of that overall foreign and national security strategy.

One can see this, in one small example, even in the way our pursuit of a ban on chemical weapons reinforced our commitment to the spread of democracy. We sought intrusive verification measures so that we might reduce the threat posed by the Warsaw Pact, but also because we knew that totalitarian regimes cannot long survive when their citizens are exposed to contradictory information. The requirement for detailed information on chemical weapons stocks and facilities before reaching agreement, at the time an innovative negotiating step which led to the December 1989 U.S./Soviet Phase I data exchange and the recent Phase II exchange, sparked a controversy which continues in Russia even today over the history of the Soviet chemical and biological weapons programs.

Our demand for trial inspections prior to completion of negotiations aided in crafting a better treaty, but it also caused Soviet citizens to ask why they themselves could not see what Americans were allowed to see. Our insistence, first in the U.S./Soviet Bilateral Destruction Agreement (BDA) of 1990 and later in the CWC that destruction of chemical weapons stocks be done in a safe and environmentally sound manner has created a grassroots political process of "NIMBY"—"not in my backyard" which has complicated agreement on a chemical weapons destruction plan but also complicates a return of the old system. One should not exaggerate

the role that arms control has played in promoting our national agenda, but one should not ignore it either.

Arguably, the CWC is more important in today's violent and changing world than it was when it was being negotiated during the Cold War. The end of the Warsaw Pact, America's sole superpower status, its changing global military missions, and its advanced conventional munitions have reduced the circumstances under which the United States would decide to deploy chemical weapons into an operational theater as a deterrent. Increasingly circumstances are such that it is more important to reduce the likelihood that others will use them than that we have them.

The Chemical Weapons Convention plays an essential role in our efforts to curb the proliferation of weapons of mass destruction and their means of delivery. In the long run, our non-proliferation, counter-proliferation, or anti-proliferation efforts may be doomed to failure if we cannot bring about political change and greater stability around the globe. As I have suggested, the CWC continues to be a small, but important part of that effort. In the near term, however, the CWC may actually play its most important role.

We will fall dangerously short in our efforts to stop the proliferation of more destructive nuclear and biological weapons if we cannot even codify and build upon the international norms which emerged in the negotiation of the ban on chemical weapons. At a time when we must build support for long term monitoring of Iraq and "special inspections" by the International Atomic Energy Agency in North Korea and elsewhere, entry into force of the CWC will commit ever more of the international community to the unprecedented openness increasingly necessary if we are to prevent disaster. At a time when the global economy reduces trade barriers, but also undermines controls on proliferation-related technologies, the CWC codifies the principle that no nation should trade in dangerous materials with those who will not accept international non-proliferation norms. At a time when threats to international security may require military forces of the United States to be deployed within range of the weapons of outlaw regimes, the CWC can reduce the dangers our troops will face and help provide the basis in international law and public opinion for strong measures that we and others may be forced to take.

These are important external effects of the CWC, but what of the substantive workings of the Convention itself? They are revolutionary. Given the inherent technical difficulty of achieving a meaningful ban on chemical weapons, they need to be. The text of the Chemical Weapons Convention has pushed the envelope of multilateral arms control far beyond what was once believed negotiable. It may be that the special circumstances at the end of the Cold War and the Gulf War made it possible for a very experienced international and American team to achieve what otherwise could never have been done. But more than opportunity was involved. Years of careful preparation and experience led the way. The former Reagan and Bush officials here today played a key role in that process.

Important lessons-learned from the on-going arms control process were applied over the course of the negotiation of the Chemical Weapons Convention. In negotiation, we were not afraid to ask for far more than an acceptable bottom line. Great emphasis was placed on more precise draftsmanship, more detailed data exchanges, greater openness and interaction, an organization with the power to conduct intrusive inspections and recommend sanctions.

Every effort was made to make cheating by parties less attractive, more difficult, more likely to be discovered, and more certain to result in a stiff penalty. Nations which refused to become parties to this new international norm would also pay a heavy economic and political price. Nations which joined could expect reasonable assistance if threatened by chemical weapons.

Although our process was not perfect, careful study came before making most decisions. A marketplace of ideas often resulted in disagreements, especially when facts were few and concepts vague. In the end, however, a vigorous interagency process which insured that all of the relevant information was considered and that senior officials were exposed to key technical information and alternative views resulted in better decisions. Sometimes a consensus developed, sometimes difficult, divisive decisions had to be made. Diplomatic and political considerations often influenced fine tuning and presentation, but I think the record will show that in the CWC, as in the INF Treaty, the START I and II treaties, and in the Verification Protocol which made possible a 98-0 vote in the Senate for consent to ratify the Threshold Test Ban Treaty, national security was the overwhelmingly central determinant.

One example from the Chemical Weapons Convention is that of challenge inspections. Everyone knows that no magic telescope exists which will tell us where in the world on any given day someone will be violating some provision of the CWC. But everyone also knows who are the most likely threats and where potential

threats to our forces must be considered most seriously. Information is gathered, intelligence estimates are made, and military precautions taken. In the past, it has usually stopped there for lack of more intrusive measures including challenge inspections which might provide a basis for international action without compromising sensitive sources and methods. A verification and enforcement regime for the CWC needed a challenge inspection mechanism.

At the same time, we recognized that challenge inspections were not magic either. They may or may not find the evidence you need, depending on circumstances, procedures, and skill. Worse, such intrusive inspections could be abused or backfire revealing important proprietary information or national security secrets. Constitutional questions related to property and privacy also needed to be addressed.

No technical challenge in arms control over the twelve years of the Reagan and Bush administrations received more careful consideration at all levels than that of implementation of a challenge inspection regime. Working with professionals and experts inside and outside of government, we sought to find a path which would maximize the effectiveness of inspections while minimizing costs including the risk to sensitive information.

We learned much along the way. More often than not, the real problems and real solutions were to be found in the field and among the operators rather than within the Washington-based bureaucracy. We found that different sites and activities posed different problems. We discovered that some sensitive information was less vulnerable than we had believed, but that some was more vulnerable. We learned that with or without a CWC, some security measures should be strengthened. We discovered that at many sensitive sites concern about illegal chemical activity could be dispelled without much risk. We also feared that at a few sites we could offer little meaningful access without great risk.

Out of this continuous process, we developed an approach which can work and which gives us what we need to protect highly sensitive information. Conceptually, the approach was simple. Access would be granted to any challenged site, but access would be managed at that site to protect sensitive information. If, at a particular site, timeliness or intrusiveness were not considered sufficient to resolve legitimate concerns, then the inspected party had an obligation to resolve those concerns by other means.

To meet diverse concerns, however, the desired U.S. package involved some complexity. Moreover, it involved far more intrusiveness than some nations desired and more rules for managed access than other nations favored. The more nations studied the proposal, the more they understood that it could work. To obtain the U.S. position as an outcome was made easier because it could be portrayed as a natural compromise between opposing views. In the end, however, I had no doubt that we would get our position because we had made it clear that we would not join consensus on a treaty that did not meet our security concerns. Other nations understood that we had done our homework and that we meant what we said.

Still, the conclusion of the CWC does not come without a price, and its contributions to our security will not be fully achieved without effective implementation not only of the CWC itself but also of a sound foreign policy and national security strategy. One of the inherent dangers of engaging in arms control negotiations is that success will have a soporific effect on the nation's attention to its national defense and that of its friends, allies, and interests around the world.

When treaties are seen as solutions to our security challenges rather than tools to be used to help address those challenges, danger grows. When the Biological Weapons Convention was concluded, too many people assumed the threat of biological warfare had been eliminated. Research on defenses received inadequate support, and we saw too much of the "Sverdlovsk" phenomenon—a propensity to explain away what one does not want to be so. One hopes that we are not seeing this again with respect to North Korea and the NPT.

Some would argue that this danger that arms control will lull us into neglecting our defenses means that we should never negotiate or at least never reach agreements. The problem with that conclusion is that it assumes we cannot trust our own nation to negotiate in its own interest or provide for its own defense. When this becomes a problem, it is a problem the American people and its representatives have the power to solve. We must make certain they get the facts. Hearings like this are an important means for doing that.

For my part, I believe that the arms control and non-proliferation tools can be used to promote our national security, and we must ensure that they do. The Chemical Weapons Convention is clearly a tool which can enhance our national security. I believe that the successful conclusion of arms control agreements need not result in the neglect of our defenses, but it often has. In giving its consent to ratification of the Chemical Weapons Convention without reservations, the Senate should take

real steps to support implementation of the Treaty, fund a strong defense program, and promote a balanced national security strategy which recognizes that the United States must be the leader in a very dangerous world.

The world has undergone dramatic change, and arms control trains have been rushing by. In such a world, if we do not shape the arms control process to serve our interests, we can be certain that some nations will be pressing in directions that are not in our interest. The Chemical Weapons Convention before this committee is in our interest. Again, Mr. Chairman, Distinguished Members of the Committee, I believe that the United States Senate should give its consent to ratification of the Chemical—Weapons Convention. Thank you.

STATEMENT OF FRANK GAFFNEY, JR., DIRECTOR, CENTER FOR SECURITY POLICY, WASHINGTON, DC

Mr. GAFFNEY. Mr. Chairman, thank you, Senator Lugar. It is a pleasure to be with you for two reasons.

One is that I, like my colleague, Ron Lehman, believe very fundamentally in the important role that this institution plays in maintaining an effective check on executive branch action—a check the Founding Fathers clearly had in mind in giving it the constitutional responsibility to advise and consent to treaties.

In the past, as you know, I have been somewhat frustrated that it has not been possible to address with you some of problems concerning treaties that you have been asked to ratify and consent to.

I am delighted that you are, from my point of view, back on track. And I welcome this opportunity to provide testimony in opposition to the Chemical Weapons Convention.

The second reason for my pleasure in being here is that I have been involved in chemical weapons matters since 1978, when I had the privilege to work for one of your colleagues, Senator Henry Jackson and subsequently, Senator John Tower on the Senate Armed Services Committee. Subsequent to that, I remained engaged on these issues when, I worked as Ron's successor over in the Pentagon as a Deputy Assistant Secretary and then as Acting Assistant Secretary of Defense, and now in the private sector at a research institution.

And along the way, I have become convinced that as heinous as chemical weapons are, there is simply no way that they can be, as President Bush was fond of saying—and as I think many of the proponents of this Convention are saying today—eliminated from the face of the Earth.

In particular, I believe that the CWC will not accomplish this goal. To the contrary, I think it may leave us more exposed to deadly chemical attack rather than less.

And in reaching that conclusion, I am speaking not only for myself, but for a number of experienced policymakers on our Board of Advisors of the Center for Security Policy, who, due to the committee's hearing schedule, will not be given an opportunity to testify in their own right.

So on their behalf as well as my own, I would like to offer a net assessment of this treaty.

The CHAIRMAN. Would you insert in the record the Board of Advisors, the—

Mr. GAFFNEY. I would be happy to sir, yes.

The CHAIRMAN. Thank you.

[The information referred to may be found in committee files.]

Mr. GAFFNEY. I think we can all certainly agree that it is a good thing. It is an honorable thing, to try to increase the opprobrium associated with chemical weapons.

This is presumably the purpose of this Convention's impetus to create a so-called international norm against these weapons.

I am afraid that that is, in the end, in this Convention and more generally, nothing less than a symbolic and hortatory objective, however—one that could probably be accomplished more easily and more cheaply and certainly with less difficulty through other means.

This could be done for example, by simply passing a resolution by the U.N. General Assembly that chemical weapons are awful and should be banned from the face of the Earth.

Unfortunately, we now have a treaty before us: that does not ban chemical weapons or production capabilities; that does not require all nations—or even all nations suspected of having dangerous chemical arsenals—to subscribe before it goes into effect; that will entail the creation of large international and domestic bureaucracies which will engage in expensive, burdensome monitoring of chemical activities—monitoring that will be of negligible value to the task of detecting and preventing covert chemical weapons production; and that will inevitably, I am afraid, degrade the readiness and effectiveness of our defensive posture vis-a-vis chemical attack. I will say a few words about each of these points if I may.

First, the CWC does not actually ban all chemical arms or the means of producing them. In fact, two agents that were proven to be very lethal in World War I, chlorine and hydrogen cyanide, are not on the list of prohibited agents. This is because they are widely used for chemical industrial purposes. Similarly, only declared chemical production facilities need be destroyed.

Second, it is not a global treaty. As I think you know, nations like Iran, Iraq, Syria, Libya, or North Korea need not be a party to this treaty before it goes into effect as long as 65 other nations, including the United States, presumably, have signed on.

What is more, I am concerned that some of these rogue states may, in fact, sign up to this treaty, making a further mockery of it since it will be clear, I hope, that all of them will persist in the production and stockpiling of chemical weapons. The BWC Convention is dispositive in this connection.

Third, the CWC is not a verifiable treaty. In fact, despite the claim that it has—and I think that the claim is correct—the most expensive, most intrusive, most complex, most burdensome inspection regime ever devised, it lacks the one thing that matters: It is not an effective verification regime.

In short, I think it is not the case that this treaty is in our interest. I think it will reduce, rather than enhance our deterrent posture.

And if I may, Mr. Chairman, just make one point in closing. On May 25, last month, your colleagues on the Senate Banking Committee held a highly publicized, and I think, looking around this rather empty room, well-attended hearing on the possibility that chemical weapons and biological weapons agents were used against American servicemen in Desert Storm.

I am not in a position to tell you, nor I think is anybody, that they were in fact used. But by the same token, I hope you will not give great credence to the argument advanced by some here that they were not.

We do not know. But I would make a wager, right now. I think it is absolutely indisputably the case that there will be more such hearings in the future. This committee and presumably other committees will be compelled to look into the fact that, in the future, notwithstanding the Chemical Weapons Convention, U.S. Armed Forces personnel have been killed or maimed or wounded by chemical weapons.

And I think that when that time comes, when those hearings are held, I would like the record of this hearing to show that we have failed—we have failed to give adequate attention to the dangerous problems that this treaty will create, failed, in short, to pay adequate attention to the future threats of chemical weapons to both military and civilian personnel.

Thank you, sir.

The CHAIRMAN. Thank you very much.

[The prepared statement of Mr. Gaffney follows:]

PREPARED STATEMENT OF MR. GAFFNEY

Fatally Flawed: Why the Chemical Weapons Convention Should Not be Ratified

It is a special pleasure for me to appear before you this morning for two reasons: First, like my colleague and friend, Ambassador Ron Lehman, I believe that the chances of producing arms control agreements that are in the interest of the United States are greatly improved when the Senate serves as the effective check on executive branch action that the Founding Fathers had in mind giving it constitutional responsibility to advise and consent to treaties.

As someone who has spent most of his professional life in one part or another of the so-called arms control "process," I am convinced that the prospect that the Senate will hear—and may be influenced by—informed criticism of any given treaty greatly strengthens the hand of our negotiators. Even more importantly, the possibility that a less-than-satisfactory treaty may not receive a two-thirds majority, or do so only with substantive amendments or reservations, can often be parlayed into negotiated provisions that might not otherwise seem unobtainable.

On the other hand, the fact that this and sister committees of the Senate have not received critical testimony from knowledgeable experts about several recent arms control accords has denied our negotiators important leverage. I very much hope that today's hearing will mark a return to the Senate's traditional practice of *welcoming* testimony from responsible critics.

Secondly, I have been personally involved in chemical weapons and related arms control matters since 1978. Initially as a member of Senator Henry M. Jackson's staff, then as a Professional Staff Member on Senator John Tower's Armed Services Committee, then as a Deputy Assistant Secretary and acting Assistant Secretary of Defense, and most recently as a security policy analyst in the private sector, the question of protecting the American people and their armed forces from chemical attack has been a special interest for me. Along the way, I have become thoroughly convinced that, as heinous as chemical weapons are, there is simply no way that they can be "eliminated from the face of the earth," as President Bush was fond of saying.

In particular, the present Chemical Weapons Convention (CWC) will not accomplish this goal. To the contrary, I believe that it will—on balance—leave us *more* exposed to deadly chemical attack, not less. This is a view shared, incidentally, by a number of the experienced policy-makers on the Board of Advisors of the Center for Security Policy, who—due to the Committee's hearing schedule—apparently will not be given an opportunity to testify in their own right. I propose in my remarks this morning to lay out, for them as well as myself, a net assessment that supports such a conclusion.

DISPOSING OF THE "INTERNATIONAL NORM" CONTENTION

We are prepared to accept the argument that it is a good thing to increase the opprobrium associated with chemical weapons. This is the purpose we are told will be served by the so-called "international norm" that will, ostensibly, be encouraged by the CWC. **Such an essentially symbolic and hortatory objective, however, could be accomplished as well by other means**—for example, by having the United Nations General Assembly adopt a single-paragraph resolution denouncing the possession and use of chemical weaponry. This approach would be no more effective, of course, in ridding the world of chemical weapons than will the present Convention, *but it would be much less onerous and potentially dangerous.*

Instead, we have a treaty:

- that **does not actually ban all chemical weapons or production capabilities;**
- that **does not require all nations, or even all nations suspected of having dangerous chemical arsenals, to subscribe before it goes into effect;**
- that **entails the creation of large international and domestic bureaucracies that will engage in expensive, burdensome monitoring of chemical activities that will be of negligible value to the task of detecting and preventing covert chemical weapons production; and**
- that **will inevitably degrade the readiness and effectiveness of our defensive posture vis a vis chemical attack.** Permit me to address each of these points quickly in turn:

NOT A "BAN"

The CWC does not actually ban all chemical arms or the means of producing them. In fact, two chemical agents that were used with lethal effect in World War I—for example, chlorine and hydrogen cyanide—are not on the schedule of prohibited agents, due to the fact that they are so widely used for legitimate industrial purposes. Similarly, only declared chemical weapons production facilities need be destroyed; those inherently capable of producing toxic chemical agents and not declared to be involved in CW production can continue to operate. This is not an argument for including such agents or facilities as prohibited items under the CWC; rather, it is an argument against believing that this Convention makes a material contribution to eliminating the potential for chemical warfare.

Indeed, this reality points up a fundamental flaw in the treaty's most fundamental premise: The inherent capability to produce toxic agents or to alter chemical compounds to increase their lethality exists throughout the industrialized world—and increasingly throughout the developing world, as well. The CWC will not change that fact; neither will its verification provisions assure that such assets cannot be used to manufacture chemical weapons.

NOT "GLOBAL"

The CWC will enter into force after the 65th country deposits the instruments of ratification. As the United States government is committed to being among those first sixty-five, *come what may, the terms of the treaty will be binding upon the United States whether or not dangerous countries like Iran, Iraq, Syria, Libya or North Korea are signatories.* Some have already served notice that they do not intend to do so. As a result, the United States will be in the position of having no in-kind deterrent to chemical attack.

In a sense, an even greater scandal is the prospect that some nations that we have powerful reasons to believe have acquired or are acquiring chemical weapons may sign up to the CWC. They would do so not for the purpose of eliminating that capability but secure in the knowledge that they can cynically subscribe to the global chemical weapons ban and covertly retain their own chemical stockpile without fear of detection or retribution.

Now, some have argued that we do not intend to have such a deterrent anyway and that, as a result, there is no harm in agreeing to a treaty that bans weaponry we have no wish to possess. We strongly disagree.

We believe that, if the United States is determined unilaterally to deny itself a credible, in-kind deterrent to chemical attack, it would be far better off doing so without a treaty. For one thing, it would avoid putting the United States in a position of allowing rogue nations to sign on to a treaty that makes us party to their deception. We should want no part of such a subterfuge.

For another, a unilateral declaration signals that we are prepared to take this step at this time and under present circumstances *but preserves full latitude to reverse such a decision down the road* if conditions dictate we must. While some con-

tend the same option exists through abrogation of the treaty, as a practical matter, that option cannot be exercised by a democratic nation like the United States.

The BWC Experience: It is also important to bear in mind that the very fact that we are party to a treaty regime affects the way we view and respond to others' behavior. Take, for example, the case of the Biological Weapons Convention (BWC). If there had been no BWC, it seems indisputable that the United States would have focussed far greater public, congressional and military attention on the Soviet BW program and the proliferation of this dangerous technology elsewhere around the world—even though this country may have continued to have no interest in acquiring its own deterrent stockpile of BW weapons.

In the presence of a treaty, however, anyone who was inclined to call attention to such developments was sharply challenged—not on the basis that the evidence was inadequate—but on the basis that they were enemies of arms control. So insidious is this phenomenon that it even winds up skewing U.S. intelligence. Instead of the best evaluation of available information, intelligence judgments become contaminated with political and legal considerations. The result: Thanks to an ineffectual arms control agreement, the American people and their elected representatives are less informed about the real magnitude of the threat than they are entitled to, and should, be.

NOT "VERIFIABLE"

The fact that the verification regime associated with the Chemical Weapons Convention is the most expensive, intrusive, complex and burdensome one ever negotiated does not alter the fact that it will still not be the one thing it needs to be: *effective*. Despite the large numbers of international and U.S. bureaucrats who will be involved in the implementation of this treaty and notwithstanding the CWC's onerous reporting and inspection requirements and likely high costs, the truth is that these elaborate arrangements will not prevent any totalitarian government that wishes to do so from producing and stockpiling chemical weapons.

Let me second a point made by my friend, Amie Hoeber: I challenge this Committee to find any U.S. intelligence official who will tell you that he or she has confidence (to say nothing of *high* confidence) that, if a society like Iraq, North Korea, Syria, Libya, China or even Russia were, after signing the treaty, to launch a secret CW production program, we would be able to detect it and prove it. This is a matter of sufficient concern that the recent National Intelligence Estimate on the CWC—which I understand is realistic on this score and, therefore, highly critical—should be made available in unclassified form before the full Senate is asked to consider this treaty.

NOT IN OUR INTEREST

Finally, this Convention should be rejected by the Senate because it is going to mislead the Congress and the public—and foreign publics—about the magnitude of the abiding threat of chemical attack. The result will be to degrade not only our deterrent posture but also our ability to defend against chemical weapons use.

Here again the experience with the Biological Weapons Convention is instructive. The threat of biological warfare did not end with a treaty that was supposed to rid the planet of such horrific weapons. To the contrary, a large and growing number of nations have the potential or the actual capability to wage biological warfare today. But, due to an arms control agreement that ostensibly eliminated this menace, the United States has consistently and systematically failed to invest in the research, development and procurement of relevant defensive technologies, leaving us gravely vulnerable to such attack.

As one listens to horrifying tales of tissue- and muscle-eating viruses in Scotland, bacteria-contaminated water supplies in Milwaukee, deadly hamburgers in Seattle and salmonella-laden chickens, the implications of our vulnerability to man-made biological agents are obvious. And yet, we continue largely to ignore this threat, to underfund needed research and procurement programs and to nurture the illusion that arms control solutions might be found to perfect the BWC and reduce our risks.

CW Defenses Will Suffer: Mr. Chairman, notwithstanding the solemn assurances you have received from other witnesses as to the Clinton Administration's commitment to a robust chemical defense program, it is predictable that no such program will long survive the atmosphere of false security that will attend the CWC. This is particularly true as the armed forces—who gave inadequate attention to chemical defensive measures even in the face of a massive CW threat—can be expected to continue to make too small investments in related research, de-

velopment and procurement in the face of dramatically declining defense budgets and myriad other unfunded and pressing priorities.

Let me emphasize that what is at stake is not merely the survival of our troops on future battlefields. Misinformation abounds about the degree to which proper defensive gear and training can neutralize the value of chemical weapons to an adversary. Just degrading the performance of sophisticated armed forces like those of the United States—and unavoidable consequence of having to “button up” or assume a chemical defensive posture—can help a nation with a less capable military reduce America’s qualitative edge and be a powerful incentive to CW use in the absence of a credible in-kind U.S. retaliatory capability.

But the vulnerability of civilian populations—particularly those in proximity to the battle zone, but also those well behind the lines—can have strategic implications, too. For example, attacks on the population of Seoul would complicate the forward defense of and orderly retreat from the border between North and South Korea in the event Kim II Sung invades southward again. Consider in this connection the traumatic effect of the mere *threat* of Iraqi ballistic missile-delivered chemical attacks on the people of Tel Aviv during the Gulf war.

A CRUEL—AND POTENTIALLY DANGEROUS—DECEPTION

In short, Mr. Chairman, we believe the Chemical Weapons Convention to be a fundamentally dishonest exercise—a case of a treaty pretending to be what it is not. Moreover, people who are promoting the CWC *have to know* that, in the final analysis, this accord is not what it is cracked up to be. The unease on this score **may explain why the drafters have denied the Senate the right to attach reservations to the articles of this agreement.** I find this an affront to good sense and proper procedure, and a precedent that is likely to have even more undesirable consequences in future arms control negotiations than it evidently did in this one. I hope that the Senate will take appropriate umbrage at this provision of the CWC.

I am among those who abhors the low public confidence in the credibility and integrity of our government. Unfortunately, this treaty is a prime example of why such low esteem is deserved. It amounts to “bread and circuses,” “smoke and mirrors”—*not serious treaty-making.*

Debilitating Inflation: I am struck by the fact that considerable attention is paid to the efforts Federal Reserve Chairman Alan Greenspan is making to prevent inflation in our economy that can, among other things, debase the value of our currency. Indeed, the notion that the government should make every effort to maintain public confidence in our currency is widely accepted.

And yet, the law—especially international law and the treaties of which it is largely comprised—is also a kind of currency that should also be protected from inflation. We believe that **signing treaties of the 250-page variety that have absolutely no sense behind them inflates this currency and fundamentally debases not only public confidence in such treaties and those who sign them and consent to their ratification.**

The simple truth of the matter is that if the 1925 convention banning first-use of chemical weapons were faithfully observed and enforced, there would be no need for the present treaty. It is only the fact that there has been neither compliance with the earlier agreement nor will on the part of the international community to enforce it that has given rise to this new, infinitely more ambitious and wholly unverifiable accord. Why anyone imagines that the prospect of debatable intelligence *concerning some suspicious building, plant or facility* is going to engender better performance from the international community than was occasioned when it was confronted with irrefutable evidence of chemical attack in the form of dead bodies is completely mystifying.

THE BOTTOM LINE

Let me conclude by noting, Mr. Chairman, that the Senate Banking Committee on May 25, 1994 held a highly publicized hearing into the evidence that chemical and/or biological weapons were used against U.S. forces in the course of the war with Iraq. I am not in a position to tell you whether or not such use occurred during Operation Desert Storm. There appears to be powerful circumstantial evidence supporting that conclusion but—as has often been the case in the past—there are, to varying degrees, other possible explanations.

I must say, parenthetically and regretfully, that people like Matthew Meselson have—in their efforts to protect the arms control process and its treaties from the implications of confirmed violations—encouraged evidentiary standards that are so stringent as to be unachievable in the real world. At a minimum, they have given

great incentives to would-be users of chemical or biological weapons to utilize agents or toxins that can be confused with naturally occurring phenomena.

One thing seems clear, nonetheless: The Banking Committee's hearing was not the last of its kind. Indeed, whatever the truth of the allegations against Saddam Hussein, there will in the future be even more painful hearings before the United States Congress examining the use of chemical and biological weapons against American military personnel and perhaps even our civilian population.

I would like it recorded that, when the time comes for such hearings into the terrible consequences of chemical attacks against U.S. troops or civilians, precious little interest was expressed in a treaty that served to increase the vulnerability of our troops; that misled our public—and publics around the world—about the continuing threat of chemical warfare; and that may actually have served to increase that threat by legitimating dangerous nations all too happy to be party to the hoax known as the Chemical Weapons Convention.

**STATEMENT OF THE HONORABLE KATHLEEN BAILEY,
FORMER ASSISTANT DIRECTOR, ARMS CONTROL AND DIS-
ARMAMENT AGENCY, LIVERMORE, CA**

Ms. BAILEY. Mr. Chairman, Senator Lugar, I appreciate the opportunity to appear before you today on the issue of the Chemical Weapons Convention.

I am a senior fellow for the Livermore Laboratory, where I began work back in 1976, as a proliferation intelligence analyst.

During my career, I have focused heavily on technical issues associated with arms control verification and proliferation. I have served as Deputy Assistant Secretary in the Bureau of Intelligence and Research in the State Department, as well as an Assistant Director of the Arms Control Agency under the Reagan administration.

I would like to focus my remarks today on two specific questions. The first is that whether or not this treaty is effectively verifiable. I contend that it is not.

The term "effective verification" arose during the eighties when we sought to replace the term "adequate verification" with something with more stringent qualifications. The objective was to set a higher standard.

This particular treaty is not effectively verifiable because there are means for cheating that are undetectable. It is possible to evade the verification measures and to cheat by a number of means which cannot be detected by national technical means. In other words, it is possible to use camouflage, concealment, and deception to evade detection.

I have prepared a little view-graph which is in the handout of my testimony. And it lists eight activities which are violations of the Chemical Weapons Convention. Of those eight, five of them are beyond our technical means to detect.

Specifically, the clandestine production of chemical agents is very easy. It is easy technologically. And it is cheap.

It is possible, for example, to hide a production facility in a mountainside, underground, or in a commercial district where it would be impossible to see it visually or to detect its presence. Only a human-source leak would enable us to know that such a facility was in operation.

Challenge inspections, therefore, would be irrelevant because if you cannot identify a facility to challenge inspect, how can you challenge inspect it?

Other scenarios or means by which nations may cheat include diversion of common chemicals from commercial production. And another area of cheating is production of nonclassical agents.

This is a particularly worrisome scenario, because chemicals not on the schedules of controlled compounds can be manufactured.

Vil Mirzayanov, the Russian dissident chemical weapons expert, recently noted: "Another major loophole in the Chemical Weapons Convention is that the list of prohibited poisons does not include what are known as substance A230, A232, substance 33 or other toxins. If a weapon is not listed, then it cannot legally be banned to say nothing of being controlled."

In other words, it is possible to make agents that this treaty will not include on its controlled substance list. And the inspectors will not be enabled to look for or prepared to look for those substances.

Now, given that the Chemical Weapons Convention is not effectively verifiable, is there any other argument against the treaty?

I would contend that there is, because we are not only getting very little benefit from the treaty, but we are paying a lot. I am not here referring simply to financial cost of the treaty. I am referring to the potential loss of security and proprietary information.

My laboratory has done an analysis of whether or not there is potential for loss of classified information and material as a result of challenge inspections conducted at facilities such as our nuclear weapons design laboratory.

The clear conclusion has been reached that, indeed, taking swipes outside of buildings—never even getting inside of them—and clandestinely removing them for analysis off-site, can result, and probably will result, in loss of classified information.

It is also possible that clandestinely removed samples—which can be very, very tiny, small enough to be sucked up, for example, into a fountain pen or something like that—can be taken off-site and analyzed for purposes of industrial espionage.

The Pharmaceutical Manufacturers Association, for example, has expressed concern that U.S. pharmaceutical industries will be subject to challenge inspection, and that the potential for loss of proprietary information, which would cost U.S. firms hundreds of millions of dollars, is very great.

I think that these issues have not been properly vetted.

And while the Chemical Manufacturers Association has been consulted, I would like to quote Mr. Will Carpenter who has said: "There are 60 to 80 trade associations whose members will also be regulated by the national authority of the Chemical Weapons Convention. An overwhelming number of these companies are not aware of the implications of the Chemical Weapons Convention."

In short, companies have not been properly consulted with. The government is not prepared to handle the challenge inspections of national facilities that work with, and have on their site, classified information.

The security threat to the United States is not worth the very, very minimal benefit that this treaty proposes to accomplish.

In fact, I would like to conclude that if we are serious about banning chemical weapons, if that truly is the political goal, that goal can be accomplished another way. One could simply amend the 1925 Geneva protocol to ban chemical weapons.

Thank you very much.

[The prepared statement of Ms. Bailey follows:]

PREPARED STATEMENT OF MS. BAILEY

Mr. Chairman, Members of the Committee, I am very pleased to appear before you today on the subject of the Chemical Weapons Convention. I am Kathleen Bailey and currently am a senior researcher at Lawrence Livermore National Laboratory, having spent the majority of my professional career in the study of the proliferation of weapons of mass destruction—the technical requirements for success and the policy options to deter it. I have served the United States Government in the Arms Control and Disarmament Agency, the Department of State, and the US Information Agency. Among my publications on the subject of proliferation are two books whose subject is the dangers of nuclear, chemical, biological, and missile proliferation. My remarks today represent my own views and do not necessarily represent those of the Lawrence Livermore National Laboratory, the University of California, or any agency of the United States Government.

My testimony will make the case that the costs to the United States for implementing the Chemical Weapons Convention far outweigh its benefits and that the treaty therefore should not be ratified. The CWC is not effectively verifiable. Monies spent on verification will be wasted. Even worse, the inspections regime run a high risk of jeopardizing US national security and costing US industry dearly.

Most proponents of the CWC admit that the treaty is not 100% verifiable; some even acknowledge that the flaws in the verification regime are extremely serious. When presented with evidence that CWC verification can be neither effective nor adequate, treaty proponents often fall back on the argument that the CWC has come too far in the negotiation process to back out now. It is true that many fine people gave their best efforts over many years to the truly worthy goal of achieving a verifiable ban. But the fact is that it was not achievable for technical reasons.

The Senate is now being asked for advice and consent on the Chemical Weapons Convention (CWC). This is not a vote of sympathy for those negotiators who earnestly believed in their task and gave unselfishly of their time. It is a vote based on whether the treaty is in the interests of US national security and the US taxpayer.

THE CWC IS NOT VERIFIABLE

The Chemical Weapons Convention was intended to accomplish two primary goals. The first was to outlaw possession of chemical weapons. This could have been (and still can be) done easily by amending the 1925 Geneva Protocol, which already outlaws use of chemical weapons.

The second goal, creation of an effective verification regime, required negotiation and extensive effort. Ultimately, however, the task proved impossible. The bottom line is that there are no technical means to detect some types of cheating.

Figure 1 displays eight principal activities outlawed by the proposed treaty. For five of these, there are currently no technical means to detect cheating.

A clandestine plant for producing chemical agent could be constructed underground, in a mountainside, or amidst industrial activity. It may have no observable features which would signal its function or draw attention. If the facility is to be dedicated only to agent production, it can be quite small. A careful producer can employ camouflage, concealment, and deception to help ensure that there are no observable features or activities. Such a facility would be discovered only if a human-source leak occurred. A challenge inspection would be irrelevant because if you cannot identify a facility, you cannot ask to inspect it.

A second type of cheating for which no technical means exist for detection is diversion of common chemicals—those used in hundreds of commercial applications but also usable in, or as, weapons. Temporary piping or tractor-trailers could spirit away enough precursor chemicals to make militarily significant quantities of agent. Accounting measures are neither practical nor feasible for uncovering such cheating.¹

Production of non-classical agents is a third major path to circumvent the CWC without detection. If the agent uses chemicals which are not on the schedules of controlled compounds, inspectors will not be equipped to look for them. Lest you think that this means of cheating is highly unlikely, note the warning given by Vil Mirzayanov, the Russian chemical weapons scientist jailed in 1992 and early 1994

¹US Congress, Office of Technology Assessment, *Technologies Underlying Weapons of Mass Destruction*, December 1993, p. 39.

No technical means exist to detect some types of cheating



Figure 1

for having revealed Moscow's continued covert chemical weapons production. In discussing Russian chemical agents unknown in the West, he said, "Another major loophole [in the CWC] is that the list of prohibited poisons does not include what are known as Substance A-230, Substance A-232, Substance 33, or other toxins. If a weapon is not listed, then it cannot legally be banned, to say nothing of being controlled."² The point is that if a toxic chemical has not been invented or we in the West don't know about it, its compounds cannot be on the list of substances for which inspectors will be looking.

Perhaps the most likely means of cheating is also the least detectable: the stockpiling of weapons, agents, or precursors. "Chemical munitions are small, impossible to distinguish visually from high-explosive shells, and easy to conceal, as are bulk chemical agents."³ Iraq, for example, stored some of its chemical agents in readily portable, skid-mounted two-ton containers, many of which were stored buried in the desert. UN inspectors have told me that they would never have been discovered had Iraqis not volunteered to uncover them.

Binary agents—those made by non-lethal compounds stored separately—present an almost risk-free avenue to cheating. In the unlikely event that the chemicals were discovered, they could be readily explained as stored commercial chemicals. Vil Mirzayanov claims this is what Russia has in mind: " * * * the ultral-lethal 'Novichok' class [of chemical weapons], provides an opportunity for the military establishment to disguise production of components of binary weapons as common agricultural chemicals * * *."⁴ General Anatolii Kuntsevich, the former vice commander of Soviet Chemical Forces and Advisor on chemical arms control, also noted the problem. He said, "[T]he complication is that production of binary weapons is very difficult to detect. I don't know of any mechanism of control."⁵

² Vil Mirzayanov, "Free to Develop Chemical Weapons," *Wall Street Journal*, May 25, 1994, p. 16.

³ Office of Technology Assessment, *Ibid.*, p. 40.

⁴ *Ibid.*

⁵ Will Englund, "Russia Still Doing Secret Work on Chemical Arms," *Baltimore Sun*, October 18, 1992, p. 1.

CWC "VERIFICATION" ENTAILS HIGH RISKS FOR THE US

Some people might argue that it is okay to have a verification regime which is not very effective on the theory that a little is better than none. This might be the case were it not for the fact that the "little bit" of verification comes at a very high cost.

No realistic discussion of financial costs to the United States has taken place because there are too many unknowns. Some of the questions that remain unanswered include: the type of equipment to be used, the number of routine and challenge inspections, the size of the international bureaucracy, and the requirements for the national authority (the national body responsible for treaty implementation). Additionally, many aspects of the treaty that were once considered to have been finalized are now being revisited by technical working groups. Only after the treaty is completed will good estimates on financial costs be possible.

There are also financial costs to the US chemical industry such as data reporting, hosting of inspections, and other treaty compliance activities. No adequate assessment has been made of these costs. Even though as many as 10,000 US facilities may be affected by the CWC, much of US industry has not even been made aware of the treaty and its implications. As Will Carpenter, a representative of the Chemical Manufacturers Association, noted, "[There are] 60 to 80 trade associations whose members will also be regulated by the National Authority. * * * An overwhelming number of these companies are not aware of the implications of the Chemical Weapons Convention * * *."⁶

Although financial costs of the CWC are unclear at present, the potential security costs associated with the verification regime can be defined. To understand the nature of the risks entailed, one must keep in mind that the CWC verification regime allows for challenge inspections of any facility, including those that produce and store nuclear or conventional weapons. Inspections entail: broad physical access to facilities, right to interview personnel, access to records, and right to collect and analyze samples.

To assess the implications of CWC inspections for sensitive facilities, the US Government conducted a series of field experiments over a four-year period.⁷ In one experiment, soil and water samples were collected *outside* of a rocket-propellant production facility and were analyzed off-site. Analysis revealed the general type of propellant being produced (strategic versus tactical) and certain key ingredients of some classified formulations, such as oxidizers, energetic binders, and burn rate modifiers. The point here is that samples taken off-site and analyzed with a variety of tools can readily reveal classified information about sensitive US facilities.

The results of these findings led the US Government to develop a policy that sample collection and analysis should be conducted on-site and the analytical tools used should be restricted. Although this policy may be adopted, it does not solve the problem of clandestine sample collection, removal, and analysis. Single particles of a few microns in diameter may be sufficient for nuclear or biological analysis. Chemical analysis may require larger, but still very small samples. It will be difficult, if not impossible, to prevent covert sample collection by a determined inspector.

The problem of protecting information extends to US companies as well. Field trials determined that fairly simple analytical tools (gas chromatography/mass spectrometry) can reveal proprietary information. In one case, soil and water samples taken from the *exterior* of buildings at an industrial chemical plant revealed not only the product of the operation three weeks after it had been produced, but also process details such as intermediates and reducing agents. Loss of such proprietary information could destroy the competitive advantage of US firms in the world market. Even though US negotiators have tried to address this problem by placing limits on what types of on-site analysis can be done to samples, there is little to prevent covert sample removal by an inspector intent on industrial espionage.

It should be noted that the prospect of losing vital proprietary information is not restricted to the chemical industry. The US pharmaceutical and biotechnology industries—world leaders in discovery and development of new drugs, as evidenced by the fact that they originate 47% of all new world-class drugs—also have much to lose. A US pharmaceutical firm spends about \$350 million to research and develop

⁶Will Carpenter, "Understanding Chemical Industry Support for the CWC and Its Concerns about Implementing Legislation," in Brad Roberts, editor, *Ratifying the Chemical Weapons Convention* (Washington DC: The Center for Strategic & International Studies, 1994) p. 31.

⁷The basic conclusions of these studies are contained in Raymond R. McGuire, "The Impact of Intrusive Inspections on Sensitive Government Facilities," in Kathleen C. Bailey, editor, *Director's Series on Proliferation*, Lawrence Livermore National Laboratory, UCRL-LR-114070-4, May 23, 1994, pp. 101-108.

a new compound.⁸ A challenge inspection could be misused by a competitor nation to acquire information on the nature of a proprietary compound and its production process—information which is literally worth millions to foreign competitors.

Although most of the security risks associated with intrusive inspections are related to sample acquisition and analysis, access to personnel also presents problems. As Raymond McGuire has noted, "One of the principal sources of 'leaks' during trial inspections was the tendency of site personnel to reveal more than was necessary to inspectors. This seems to be a particular problem of scientists and engineers, who, out of pride in their work, wish to share all of the details with the 'friendly' inspectors."⁹ This can be detrimental to US national security if workers in the US nuclear weapons complex, for example, are interviewed by nefarious inspectors. Likewise, it may be difficult for firms to keep proprietary information safe during interviews involving staff not sensitized to the prospect of inspections being used for espionage.

Records on procurement, production, storage, and distribution—which will be open to inspectors under the CWC—are also likely to reveal sensitive information. Such records are rarely compiled with the idea in mind that they may be reviewed by outsiders who may be intent on espionage. The cost of sanitizing such records may be prohibitive, even if time allowed.

In the case of US companies, there is also the question of whether it would be constitutional to require them to make such records available. Indeed, there is question whether CWC inspections would be a violation of the US Fourth Amendment, which protects against unreasonable searches and seizures, in absence of a warrant and upon probable cause.

CONCLUSION

As mentioned at the outset, there were to be two principal benefits of the CWC—it would ban chemical weapons possession and would create an effective verification regime. The former can be achieved without the CWC and the latter is not now technically feasible.

A treaty with such minimal benefit might be worthy of ratification for political reasons were there not excessive costs to be incurred. The US Senate should withhold ratification of the CWC on the basis that it presents a high risk to US national security data and US industrial proprietary information, and that it burdens the taxpayers with paying for verification that is not effective.

STATEMENT OF AMY SMITHSON, DIRECTOR, CHEMICAL WEAPONS CONVENTION IMPLEMENTATION PROJECT, HENRY L. STIMSON CENTER, WASHINGTON, DC

Ms. SMITHSON. Thank you, Mr. Chairman. I appreciate the opportunity to appear before the committee today to testify on behalf of the Chemical Weapons Convention.

A while ago, another advocate of chemical weapons arms control testified before this committee, at which time he observed that the threat of chemical weapons was such that overnight, a chemical attack can reduce a "metropolis to a necropolis."

That statement was uttered in 1926 by a fellow named Will Irwin. He said that long before we ever had nerve agents that can produce nearly instantaneous death, long before ballistic missiles came on the scene.

And if you would like to see the devastating effect of these two elements combined, just think back a few years ago to the Persian Gulf war when we would all dash home to our televisions each night wondering whether or not Saddam Hussein had decided to tip his scud missiles with nerve agent and lob it at U.S. troops, or perhaps at innocent civilians.

This is a threat that the United States must address. I believe that the Chemical Weapons Convention on its merits alone is capa-

⁸ Al Holmberg, "Industry Concerns Regarding Disclosure of Proprietary Information," in Kathleen C. Bailey, *Director's Series on Proliferation* (see footnote 5) pp. 91-99.

⁹ *Ibid.*, p. 104-105.

ble of addressing that threat. But it is appropriate for you to consider the Convention in the context of other alternatives to it.

The first of those three alternatives would be to stay the course of the Geneva protocol and the Australia Group.

The Geneva protocol bans the use of chemical weapons. When the United States and a number of other countries ratified this treaty, they reserved the right to retaliate in kind to a chemical weapons attack.

In doing so, they weakened the Geneva protocol from a no-use treaty to a no-first-use treaty. In addition, there have been a number of instances, since the Geneva protocol was negotiated, where chemical weapons have been used.

Each of these instances has been a reminder of the need to roll the threat further back, to capture and ban not just the use, but the stockpiling, the production, and the development of these weapons.

The Australian Group was created in the middle of 1985 in response to the use of chemical weapons during the Iran-Iraq war. About 25 countries participate in this endeavor.

They voluntarily coordinate their export control policies on dual-use chemicals. They harmonize those policies and evaluate requests for some 50 chemicals on a case-by-case basis.

The Australian Group, however, was not intended to be a substitute for the Chemical Weapons Convention, only a supplement to it. I would argue that both the Geneva protocol and the Australian Group, although they have made valuable contributions, are insufficient to address the problem at hand.

The second alternative you might consider would be, as Dr. Bailey has suggested, to modify the Geneva protocol to include a ban on chemical weapons, and further, to improve U.S. national technical means of verification, NTM, to the extent that they could monitor this treaty with significantly greater confidence than current capabilities allow.

Unfortunately, the dual-use nature of these chemicals and the facilities of concern is such that NTM alone will not be able to do this job. This is not as simple as counting missile silos, or even counting mobile missiles.

Perhaps more than any treaty this Senate has ever considered, onsite inspections are necessary to monitor a chemical weapons accord.

As for the other part of this proposition, I see no reason to discard more than two decades of very difficult, long negotiations to achieve a ban on chemical weapons in a Convention in order to go through that exercise again. Why recreate the wheel?

The third and final alternative that you might consider is one that flows from a line of argument that you have heard here today. That is, if the United States ratifies this Convention, it would be defenseless before states that do not join, or states that join and cheat.

The alternative that you would consider then, would be that all states that possess chemical weapons would ratify the Convention and destroy their stockpiles before the United States comes on board. In addition, the United States would reserve the right to retaliate in kind until that comes to pass.

Even those who have just a vague familiarity with the Convention recognize that it embraces the right of treaty parties to maintain their defenses against a chemical weapons attack.

U.S. chemical defenses are among the most sophisticated in the world. This treaty will allow us to maintain those defenses as long as there is a will to do so.

I would urge the Senate committees that have oversight of these programs and budgets to give them strong support for the indefinite future.

I would also recall that during the Persian Gulf war, President Bush, on the advice of his military advisers, ruled out the right to retaliate in kind at that time, even if Saddam Hussein did use chemical weapons.

Furthermore, in May 1991, he announced that the United States would forswear the right to retaliate in kind for a chemical weapons attack for any reason whatsoever. So in a way, both U.S. practice and policy progressed to the point where today, a debate about retaliation in kind is somewhat moot.

Finally, I would observe that most military experts believe U.S. military capabilities are so effective, so strong, that we are thoroughly capable of responding to military threats without resorting to chemical weapons.

As for the requirement that other states that have chemical weapons all ratify this treaty and destroy their stockpiles before the United States comes aboard, I would assert that that is simply unrealistic.

Foreign policy is not brewed like a cup of instant coffee. More than 180 countries do not, at the spur of the moment, decide to take the same course of action, no matter how right that might be.

Nevertheless, more than 155 countries have joined the United States in signing this Convention. In doing so, they have provided ample demonstration that, not only, is this a problem that needs attention, that the Convention is the appropriate vehicle to address that problem.

Furthermore, along the way, just in the signing of this Convention, already, the states that are intent on not taking a responsible course of action stand out like a sore thumb. You can tick them off on the fingers of one hand—North Korea, Iraq, Syria, Libya.

What the Convention does is it further isolates these countries. It subjects them to automatic economic penalties by denying them trade of some dual-use chemicals. But finally, it increases the global pressure upon them to rectify their unlawful behavior.

In a civilized world, these are the tools that we have—short of war—for dealing with these outlaw states.

In conclusion, the chemical weapons proliferation problem must be addressed. The Convention has all of the tools capable of addressing that problem. There are no realistic, feasible alternatives.

I urge you to ratify this treaty. Thank you.

The CHAIRMAN. Thank you.

[The prepared statement of Ms. Smithson follows:]

PREPARED STATEMENT OF MS. SMITHSON

Since the mid-1600s mankind has sought yet fallen short of a treaty that would stem the proliferation and use of chemical weapons. That objective was achieved

with the Chemical Weapons Convention, which opened for signature in mid-January 1993.

The central dilemma that has stymied previous arms control efforts and that makes a chemical weapons treaty exceedingly difficult to verify is the regulation of so-called dual-use chemicals and facilities. Many of the chemicals used for ordinary products—fertilizers, pharmaceuticals, pesticides, ballpoint pen ink—can also be the ingredients of chemical weapons. The treaty revolves around a mix of provisions designed to separate the military activities of concern from legitimate commercial and governmental endeavors. To do so, the Convention ranks dual-use chemicals in order of risk and requires signatories to submit regular reports about the production and processing of these chemicals. Facilities that work with these dual-use chemicals will be subject to routine inspections.

The Convention's verification provisions were born out of a necessity to strike a balance between arms control monitoring and unnecessary intrusion into areas of national security and commerce that are unrelated to the treaty. Debate will continue indefinitely about the finer points of the balance that was reached, but both government and industry interests were represented. Moreover, both the Clinton Administration and representatives from U.S. chemical industry have endorsed the results. This balance between the rights of inspectors and of host countries pervades even the most stringent of the Convention's verification requirements, challenge inspections.

Each nation that joins the Convention accepts the unambiguous obligation to grant challenge inspections in the event others suspect it is trying to violate the treaty's prohibitions. Challenge inspections will be governed by timelines in order to thwart any attempts host officials might make to delay the proceedings. Within 36 hours after arrival in the challenged country, inspectors will begin monitoring activities at the perimeter of the challenged site. Initially they can only take photographs, examine traffic logs, and patrol the perimeter under escort, but once the dimensions of the perimeter are agreed the inspectors can take air, soil, and effluent samples and use other monitoring instruments.

The guidelines for managing a challenge inspection are similar to those of a routine inspection. That is, inspection procedures are intended to allow the inspectors to assess the status of activities without forcing states and companies to forfeit unrelated security and business secrets. In that regard, the specific areas of a challenged facility that inspectors will examine will be subject to negotiation, and host officials can use such safeguards as shrouding equipment or logging off computers. Within 72 hours after inspectors arrive at the perimeter, the host country must provide access inside the perimeter to prove compliance. Instances where host officials do not satisfy inspectors' requests and make "every reasonable effort to demonstrate" its compliance will be duly recorded in the inspectors' report. While these reports will become the basis for subsequent action, compliance judgments will be made by governmental officials, not the inspectors of the international monitoring agency.

As useful as these provisions are, however, challenge inspections are not a guarantee that all troubling situations will be quickly resolved. Inspectors may emerge from a challenge inspection with the "smoking gun" of proof, but, far more often, ambiguities will remain in situations of concern. Whether appropriate action is taken in these instances will depend upon the will of the international community, which in turn depends upon the political leadership of the United States and other leading countries. When it comes to treaty enforcement, there is simply no substitute for the international will to take punitive action if the country in question does not rectify its behavior. In other cases, the results of a challenge inspection may be ambiguous: the challenged sites may not receive a clean bill of health even though definitive evidence of noncompliance is lacking. Even in such circumstances, however, what the inspectors did or did not see will surely tell the international community more than it previously knew. As a result, concerned countries will be able to adjust their policies accordingly, including modifying export control policies and possibly adding other sanctions.

Some critics deride the Convention's monitoring requirements by characterizing them as utterly deficient. Ironically, during the 1980s these same critics touted these same provisions—detailed data reporting accompanied by routine and challenge inspections—as essential for success in verification. The critics of this treaty are ever mindful, as everyone should be, of the possibility that governments and individuals may try to circumvent the law. Their thoughts are mainly useful at this juncture for heightening vigilance, but they are no justification for dismissing a treaty built around the Ronald Reagan maxim that arms control is not about trust, it is about verification.

This treaty's verification provisions set a new standard for the international community. Just as important, this Convention is a disarmament treaty. Parties to it must destroy their stockpiles of chemical weapons, a process that will fall under international scrutiny every step of the way. The Convention does not dictate the means by which chemical weapons will be destroyed, only that whatever method is chosen be safe for humans and the environment, irreversible, and able to do the job within ten years. States that have difficulty with this deadline may request an extension of five years.

In all likelihood, Russia, which is an original signatory, will request this extension. Russia's attempts to mount a chemical weapons destruction program amidst political and economic disarray have been a source of great disappointment. In addition, the charges that a new generation of nerve agents has been developed and that Russia has been covertly disposing of chemical weapons are deeply disturbing. The Russian government must satisfactorily answer those allegations. Also, it must remove carryovers from the Soviet era that may be responsible for these activities and infuse its destruction program with a sense of purpose by appointing officials who are committed to chemical disarmament and have the authority to make difficult decisions. For its part, the Convention can be an impetus to keep Russia headed down the path toward chemical weapons disarmament. Without the Convention, the United States and the West will not have the verification tools needed to clarify matters such as those currently in question. The Convention, in short, can provide additional leverage to induce accountability on the part of the Russian government.

Thankfully, Senators Richard Lugar and Sam Nunn, among others—notably Senator Joseph Biden of this committee—have recognized the effect that Russia's internal turmoil is having on its ability to abide by its arms control commitments. They have spearheaded the development of a policy of cooperative threat reduction that seeks to increase U.S. security by constructively addressing the problems presented by Russia's weapons of mass destruction. However, the bulk of the Nunn-Lugar funds has been earmarked for nuclear arms. Using the same carrot-and-stick approach followed in the nuclear sphere, the United States should redouble its efforts to assist the Russia chemical weapons destruction program. This argument would hold true even if the Convention were not before the Senate for its advice and consent to ratification.

IF NOT THE CONVENTION THEN WHAT?

While the Convention is fully capable of standing on its merits alone, any decision regarding ratification should also be made in the context of existing alternatives. The first such alternative would be to continue to rely upon the present mechanisms for addressing chemical weapons use and proliferation, the Geneva Protocol and the Australia Group.

The frailty of the 1925 Geneva Protocol's prohibition of the use of chemical weapons was one of the main motivations driving the negotiation of the Chemical Weapons Convention. Each use of chemical weapons has been another ugly reminder of the need to roll the threat further back, of the need for a ban that captured development, production, and stockpiling as well as use. Furthermore, in ratifying the Protocol in 1975, the United States, like so many other countries, reserved the right to retaliate in kind if attacked with chemical weapons. Such reservations essentially changed the Protocol from a no-use treaty to a no-first-use treaty. The Convention's provision that no reservations can be placed upon its articles is partially a reaction to this weakening of the Geneva Protocol.

The Australia Group was formed in 1985 as a mechanism to curb the flow of dual-use chemicals fueling the use of chemical weapons during the Iran-Iraq War. The Australia Group's members voluntarily harmonize their export controls for over fifty dual-use chemicals, evaluating applications for such exports on a case-by-case basis. The Australia Group, however, was intended to function as a supplement to, not as a substitute for, the Convention.

The utility of the contributions made by the Geneva Protocol and the Australia Group should not be diminished by the fact that the proliferation of chemical weapons continues to be a pressing concern. Neither the Protocol nor the Australia Group has the full array of controls, destruction deadlines, or verification provisions that can be found in the Convention. Clearly, the Geneva Protocol and the Australia Group are essential, but insufficient to deal fully with the problem of chemical weapons proliferation.

Another alternative—one that has the distinction of being recommended as "easy"—would be for the United States to pursue modification of the Geneva Protocol to ban possession of chemical weapons. Meanwhile, the argument goes, the United States should improve national technical means (NTM) of verification to the extent that it can track the chemical weapons proliferation activities with significantly

greater confidence than present capability allows. Unfortunately, the dual-use nature of the chemicals and facilities of concern is such that NTM alone cannot do the job. The situation is not as simple as counting missile silos or even mobile missiles. Perhaps more than with any other accord ever considered by the U.S. Senate, on-site inspection is a *necessity* for monitoring chemical weapons disarmament and nonproliferation. As for the other portion of this alternative, it is difficult to fathom why the U.S. Government should seek to replicate a ban on chemical weapons in the Geneva Protocol when it has fought so diligently through more than two decades of negotiations to accomplish that feat in the Convention.

Finally, it has been suggested that the Convention will render the United States defenseless against countries that do not subscribe to it or those that join and then cheat. The alternative implied here is that all other countries that have chemical weapons must ratify the Convention and destroy their stockpiles before the United States comes aboard. In the interim, this line of thought continues, should the United States come under chemical weapons attack, it should retaliate in kind.

A cursory review of Articles VI and X reveals the Convention's embrace of the right to maintain defenses against a chemical weapons attack. In short, U.S. defensive preparedness can be maintained as long as there is a will to do so. U.S. chemical weapons defenses are among the most sophisticated in the world. For the indefinite future, these programs should continue to receive the strong support of the Senate committees that oversee their activities and budgets.

Most experts agree that U.S. conventional forces are more than capable of coping with potential threats to U.S. security. The potency of U.S. conventional firepower is such that when squared off against one of the world's largest armies, President George Bush and his military advisers ruled out U.S. retaliation in kind if Iraq used chemical weapons during the Persian Gulf war. Furthermore, Bush announced in May 1991 that the United States would forswear use of chemical weapons for *any reason whatsoever* upon the Convention's entry into force. U.S. policy—both in word and in practice—has already changed to the point where discussion of retaliation in kind for a chemical weapons attack is moot.

Next, the Convention contains the most complete set of verification tools ever assembled in a multilateral treaty, including challenge inspections. These provisions, described above, are designed to detect and deter cheating, to increase the costs of evasion, and to set in motion punitive measures against treaty parties found to be in noncompliance. Perhaps critics of the Convention could explain just how they plan to tackle this problem without such verification provisions, the very ones they used to extol but now deride?

As for the prerequisite of immediate universal adherence, it is unrealistic. Foreign policy is not brewed like instant coffee: success in the international arena requires the identification of a worthy goal, the selection of a suitable course of action, and the fortitude to pursue that policy over the long-term. The problems that the Convention was designed to deal with are not amenable to a quick fix. More than 180 countries do not simultaneously decide to take the same course of action—no matter how right it may be.

Nonetheless, over 155 nations have joined the United States in signing the Convention—an ample demonstration of just how strongly the global community feels that the Convention is the appropriate vehicle to establish a strong behavioral norm against chemical weapons proliferation and the legal foundation to curtail it. Already, the countries currently bent on avoiding the responsible course of action stand out like sore thumbs. These nonsignatory countries are familiar for their general rogue behavior and can be ticked off on one hand—Libya, Syria, North Korea, Iraq. The Convention singles out these countries and subjects them to automatic economic penalties by denying them trade in some dual-use chemicals. Once again, the Convention has no warranty that such countries will ever come into the fold, but it ratchets up global pressure on them. In a civilized world, these are the tools—short of military action—available for coping with outlaw states.

Finally, the ramifications of the U.S. Senate's vote on this treaty must also be considered. If the Convention is not ratified by the United States, this treaty's chances for success in the near-term will be severely damaged. Many nations look toward Washington for leadership because U.S. proposals were the fulcrum around which this treaty's key principles and provisions were turned. Moreover, the United States is the second-largest chemical weapons possessor and has a large commercial chemical industry. For these reasons, leadership in controlling chemical weaponry is expected of the United States. If that leadership is not forthcoming, many of the nations that are keying their ratification to U.S. action may waffle and perhaps fall by the wayside. So, U.S. leadership in this endeavor, as in so many others, is crucial.

One of the witnesses who appeared before this committee to advocate the ratification of the Geneva Protocol, Will Irwin, observed matter of factly that the chemical weapons and existing delivery systems of that time could reduce "a metropolis to a necropolis" overnight. Propeller aircraft were the delivery systems available when he testified in 1926. In the interim, nerve agents that produce near instantaneous death have been deployed, as have ballistic missiles. Only a couple of years ago, the Persian Gulf war—with harrowing days spent wondering whether Saddam Hussein would tip Scud missiles with nerve agent—provided vivid reminders that the threat that chemical weapons pose to military forces and civilians has continued to escalate. The need to find effective, strong mechanisms to reduce and address that threat has likewise grown more acute.

Those who are not inclined to ratify this treaty must consider how else they would reduce this threat. Critics of this Convention have complaints, but they have *no* practical alternatives. The need to face the problem of chemical weapons proliferation, the merits of the Convention, and the lack of feasible alternatives all point to one rational course of action on the part of the U.S. Senate—ratification of this treaty. The Convention should become the keystone of a new and more effective U.S. policy for enabling chemical weapons disarmament and dealing with the problem of chemical weapons proliferation.

[Other material submitted by Ms. Smithson may be found in committee files.]

The CHAIRMAN. Well, I would ask one question of Mr. Lehman. I was struck by the fact that both Ms. Bailey and Ms. Smithson advocated amending the Geneva protocol. And I am just curious what your reaction was to that, because that thought must have occurred to you when you were Director of the ACDA.

Mr. LEHMAN. We addressed that question a long time ago and many times since over the years. And again and again we came back to the same conclusion, that you needed to have a verification mechanism and an enforcement mechanism.

And you needed to codify more rigid standards having to do with sanctions, having to do with trade with nonparties, or I should say nontrade with nonparties. A comprehensive approach is necessary.

We worried very much about some of the important issues that have been raised here today concerning the costs and risk of intrusive verification. Also, we worried very much about the limitations of even that kind of inspection.

I do not think there is any other senior public official that has been to as many sensitive sites around the United States looking at exactly that issue as I have. And let me tell you, it is a real issue.

It is a challenging issue. It took us many, many years to develop an approach that would both give us the utility that we wanted out of the inspections, and at the same time protect us against the risks.

I will not go on now—but I think what we did is find an approach that made sense. And we sold it in the negotiations.

The CHAIRMAN. Thank you very much.

Mr. GAFFNEY. Mr. Chairman, I would like to make a comment on that. I would note that the reason for this treaty is that our government and a number of others around the world failed to enforce compliance with the 1925 Convention.

It was the 1925 Convention, you will recall, that stipulated there should be no first use of chemical weapons. It permitted nations to hold chemical stockpiles on the grounds that they could retaliate, and mainly to have such capabilities to deter attack.

But it was the use by Iraq, most specifically, of chemical agents against Iran, and against its own Kurdish civilians, that prompted

a conference—I do not know whether Ron attended it, but it was held in the early days of the Bush administration in Paris, that could not bring itself even to name Iraq as a user of chemical weapons, let alone condemn it.

And this, in turn, precipitated the much more ambitious, much more far reaching and infinitely less, I think, verifiable and enforceable agreement that is before you now.

The CHAIRMAN. Thank you.

Ms. SMITHSON. Excuse me, Mr. Chairman. I think I need to make a correction here. I believe you might have misunderstood—maybe it is my southern accent—but I am not advocating modifying the Geneva protocol. I was just outlining that as one of the alternatives available.

The CHAIRMAN. Right.

Ms. SMITHSON. In fact, I disagree with this alternative and believe that it would be something akin to recreating the wheel. We have the provisions we need in the Chemical Weapons Convention.

The CHAIRMAN. Thank you. I am glad Mr. Gaffney brought in that point about the Iraqi use against Iran. I recall that vividly, because I think I was a leader or one of the initiators of the resolution that took into account the administration at that time opposed very vigorously that we do take action on that.

Mr. GAFFNEY. And this is really the trouble, I am afraid. Mr. Chairman, anyone who tells you that we will do a better job of arousing international opprobrium and, in effect, enforcement, of an agreement that has at its core, the question of whether a suspicious building is, in fact, on the basis of debatable information, a chemical weapons production building, when we could not energize the international community to do beans in the face of dead bodies killed by chemical weapons. I suggest to you that that is very misleading, sir.

The CHAIRMAN. My recollection is the failure on my part, that is, not having—being able to organize a greater response, but it was the House of Representatives and the administration, both very vigorously opposed the actions you have since suggested.

Mr. GAFFNEY. I deplore that, sir.

The CHAIRMAN. Right.

Mr. LEHMAN. Mr. Chairman, could I comment on this, just one second?

The CHAIRMAN. Certainly.

Mr. LEHMAN. I agree very strongly with what Frank said. I think we ended up paying a price for the international community, including the U.S. Government not stating publicly and condemning publicly by name, at that time, at the Paris CW use conference, that Iraq had used chemical weapons. But some of the rest of the analysis I disagree with.

I think the problem is that, in many cases, use is actually harder to detect than when it is approached in the context of preventing production of stocks and the stockpiling of stocks.

What we would like to do is get away from a situation where anybody can debate over whether it was first use or second use or justified use. We want to be able to detect it earlier if we can, and prevent preparations if we can.

Mr. GAFFNEY. There is no question, Mr. Chairman, about whether the Kurdish civilians had initiated use of chemical weapons against the Iraqi Government. That is——

Mr. LEHMAN. I agree with that.

Mr. GAFFNEY [continuing]. Simply rubbish. What we wound up with was blatant evidence of the criminal, genocidal use of chemical weapons. And the international community could not do anything about it.

I venture to say that they will be even less disposed to do anything about what will, in the end, also be debatable intelligence about the quality of a building or of evidence related to its use.

The CHAIRMAN. Thank you very much indeed.

Senator Lugar has indicated that he would be good enough to conclude the hearing. I have a series of votes going on at this moment.

Mr. GAFFNEY. Thank you, sir.

Senator LUGAR. Thank you, Mr. Chairman.

Both Mr. Gaffney and Ms. Bailey have made a strong case about the lack of confidence in verifiability. I will not belabor their points, but, in previous hearings, we discussed with members of the Department of Defense and our intelligence services this question which is an important one in any arms control treaty.

And essentially, the question always comes back, as I think Ms. Bailey was pointing out, to the level of confidence. I believe her as to how much verifiability we want. I would like to ask the proponents of this treaty to comment.

I have observed that argument on the verifiability will probably be made backward and forward depending on which way we debate the issue at various times. How important is this, ultimately?

Clearly, it appears to me that, as the Senate hears this entire argument, either through this committee or through floor debate, a great number of Senators will come to the same conclusion that some witnesses have.

And that is that there are great problems with verifiability, not only the caves and the clandestine activities, but in the case of chemicals, chemicals that also have many civilian uses.

But others will counter that you have to have a great deal of cheating for it to be militarily significant, that is detectable, as opposed to small amounts that do not seem quite so meaningful?

How do you deal ultimately with the verifiability issue here, if you come down in favor and say, on balance, the treaty ought to be ratified? What do you have to say to that?

Mr. LEHMAN. Senator Lugar, we knew from the beginning that the verification challenge on the Chemical Weapons Convention was going to be difficult.

And we knew that it would never achieve the level of verification that we got, say, for example, from the verification protocol of the threshold testing treaty.

On the other hand, it is not clear that this is just the BWC all over again. We are talking about a different type of capability. Militarily significant capabilities tend to have to be larger numbers of stocks that have to be available for extended use in many cases.

No one can tell you that we have some magic telescope that can find anyone, anywhere in the world who might be in violation of

some provision of the Convention. That is not possible. The biggest weaknesses are, indeed, in the area of wide area search.

On the other hand, let us not kid ourselves. We know who the most likely threats are. And we know the circumstances under which our forces are most likely to be at risk.

We need to take defensive measures, but we also need to focus our intelligence assets on those. And in many cases, we think we know, we have intelligence estimates, but we need to be able to lock it in.

And the Convention will help us in that effort. It is not perfect. But I think it is going to turn out to be much more effective than many people think.

Senator LUGAR. Ms. Smithson, do you have a comment?

Ms. SMITHSON. Yes.

The first point that I would make is that the data reporting that this Convention requires will make a qualitative as well as a quantitative difference in the amount of information that we currently have about chemical activities worldwide.

Second there is no guarantee that on a routine or a challenge inspection, you are going to come up with a smoking gun.

But I can guarantee you that in carrying out these inspections you will come out of a suspect facility with more information than you went in with. These inspections are necessary in order for us to be able to evaluate what is taking place in different countries.

You cannot accomplish chemical weapons arms control without these inspections. If you do not come up with the smoking gun, or even if you do, the ability to enforce the treaty will depend on the international will led, by the United States, I would hope, to enforce the treaty's provisions.

Next, this treaty will establish a behavioral norm that will put the development and possession of chemical weapons outside of acceptable international behavior. And it focuses global pressure on countries that do not comply.

Furthermore, it attacks the problem from both the demand side and the supply side. Implementing legislation for this treaty requires that participating governments pass its requirements on to individuals and companies that seek to profit from peddling dual-use chemicals and facilities to would-be proliferators. These companies and individuals will be prosecuted in that event.

Finally, there are no guarantees for catching cheaters and no substitute for international will to penalize them. I agree that this will be a difficult exercise, but that is no excuse for not attempting it. What the opponents of this treaty want from the Senate is paralysis. Well, paralysis is not policy.

The Convention provides you with the tools to tackle this problem. And I hope that you will ratify it.

Mr. GAFFNEY. Senator, may I just make one responsive point? Ron Lehman introduced the sort of semantic issue here, what is effective verification, what is adequate verification. We have now had elaborations on the point.

I suggest that this is really beside the point that you have to grapple with now.

And that is, a colleague of mine, Doug Feith—whom I think you know, and who I would strongly encourage be permitted to testify

before this committee on this subject because he is a first-class expert on it—makes the observation that it is a little like the question, “Will Charles Manson become President of the United States?”

Now, to be sure, you cannot have absolute knowledge that Charles Manson will not become President, but you know it is not going to happen.

And I suggest that, essentially, the same principal applies here. This treaty will not be verifiable. And rather than take my word for it, as I said in my prepared remarks, I challenge you to find a single intelligence official of the U.S. Government who will come forward before this committee and tell you that he has confidence, leave aside high confidence or very high confidence, but confidence that our intelligence capabilities would be sufficient to detect and prove that chemical—covert chemical weapons manufacturing is taking place somewhere around the country.

There is an NIE, a national intelligence estimate, as I think you know, that has been prepared on this subject. It ought to be made available in unclassified form if possible, because I understand that it is honest, and therefore highly critical of the verifiability of this treaty in the terms that count, which is: Will we know of a violation, and will we be able to prove it, information upon which these statements about prosecution and the like are threatened.

Senator LUGAR. I am just interested in common sense. Let's take the fine testimony that Ms. Bailey offered, these various eight areas.

The question is, I suppose: So what? In other words, let us take for granted that you cannot verify, or you can verify just bits and pieces. You get a little glimmer of this and that and so forth.

It seems to me the point that you made is that, in fact, the political will to respond to whatever happens is really of the essence.

For example, let's take the North Korean situation with a different treaty now.

Intelligence people differ, but there is a supposition that somebody there may be producing nuclear weapons. And that would clearly be a violation of the treaty. And the inspectors have been kicked out, and the rods are in the pool and so forth.

Now, the question is: What does anybody do about it? And that, I suppose is always basic to any treaty. It is not verification.

With respect to the degree of verification here, we can argue about that. We would like to know more. We would like to look at the reprocessing plant and all the rest of it. Maybe life can never be that simple.

What I suppose I am asking, in toto, is that, given the ever more intrusive verification regimes in arms control treaties, but also given the difficulties with political will in responding to violations, what are we really gaining and losing with such a treaty?

Mr. GAFFNEY. Could I say, I think you have put your finger on, of course, the key point. I very strongly believe that the nature of the treaty is related to the political will.

And I would suggest that the BWC may not provide—Biological Weapons Convention—may not be a perfect model for what we are likely to face here. But I think it is instructive. And let me just give you one example.

Since that treaty was signed, ratified, went in force in 1972, it is a matter common knowledge, I believe, certainly among intelligence experts that the proliferation of biological weapons has proceeded apace.

Contrary to some of the things that Dr. Meselson has said in the past, there have been abundant indications that it was taking place in Russia. And I think it is now obvious that it has happened elsewhere as well.

Unfortunately, because it has become wrapped up in arms control issues, and because there is a reflexive reaction on the part of people to defend or protect the arms control process, Senator, I think you have seen in the first instance, less accurate, less public information about the gravity of the biological weapons problem around the world today. And you have seen even the intelligence on this question shaded, altered, hedged and otherwise made less candid than it should be.

And the reason I believe very strongly that this a troublesome problem for both chemical and biological weapons, is, unfortunately, it is not just a question of these terrible, heinous weapons being used against our military forces.

I am afraid they will be used in the future against our civilian populations. And that is the point of the quote from 1925, or whenever it was suggested. They are enormously potent. And we are doing nothing, nothing in this country to defend our people against biological warfare attack.

And I am afraid that the net effect of this treaty, as a treaty, will not only be to reduce the will that we have to deal with violators, reduce the likelihood that we will invest in our military's defensive potential, but also reduce, or further eliminate what we might do to provide for the civil defense of our population against chemical attack.

Mr. LEHMAN. Senator, I would like to echo just about everything that Frank said. Let us not kid ourselves. It is a very dangerous world out there. The biological weapons threat is very serious. We need to take it more seriously.

But I would like to pick up on what you said about Korea, because I think it goes to the heart of the question of why I support ratification of the Chemical Weapons Convention.

We have long had intelligence estimates on what is happening in North Korea. I am very disappointed at the lackluster response to what has been happening in North Korea.

But I can assure you that we would never get the support to do what I think we need to do on North Korea if they were not violating a treaty and if they had not rejected international inspectors.

I wish it were otherwise, but it is not so. And that is the world we live in. And therefore, we need the moral high ground. And we need the extra tools that are necessary so the United States can do what the United States needs to do with its friends and allies around the world. Thank you.

Senator LUGAR. That completes my questioning. And in the same spirit that the chairman passed the baton on to me, let me pass it along to Senator Helms.

Senator HELMS. And I promise you that I will be just a couple of minutes.

I am convinced that there is a computer down in the bowels of the Capitol somewhere that turns up about midnight saying, "How can we schedule Helms in four different places at the same time tomorrow?"

We had a very important meeting of the Rules Committee. And I apologize to myself more for having to miss the testimony. Let me ask you a couple of questions. If you have already covered in your various statements, just say so, and I will read the draft.

Now, governments have been working to ban chemical weapons for a long, long time. And I will direct this to you, Ms. Bailey.

You have raised some serious questions regarding the CWC as a tool to ban these weapons. Now, my question is: Is there a way to accomplish a ban on chemical weapons without ratifying the Chemical Weapons Convention?

Ms. BAILEY. Yes, sir. There is. The need can be met by amending the 1925 Geneva protocol. We could ban chemical weapons. The advantage to this is that we would not have the onerous verification regime which is costly, not only in financial terms, but also in terms of loss, potential loss of national security and proprietary information.

Senator HELMS. Did you get into this earlier today?

Ms. BAILEY. Yes, sir. My testimony focused on the ease with which nations may cheat on the Convention.

Senator HELMS. OK. Well, I will read the record and save time. Thank you. Did you discuss the evidence that Russia is continuing to manufacture biological and chemical weapons or do you believe that Russia is continuing to manufacture these weapons?

Ms. BAILEY. Russia has admitted it, sir. Russia has admitted continuing to produce chemical weapons. And there have been accusations that it is working on biological weapons. This is pretty much assumed to be the case.

Senator HELMS. Well, that answers the next part of the question, which is that Russia does not intend to abide by the CWC?

Ms. BAILEY. Furthermore, Russia has already publicly announced that it would not be able to fund its part of the Chemical Weapons Convention, not only in terms of international participation, but in terms of the functioning of its own national authority.

And if its national authority is not functioning, one can be fairly sure that it will not be adhering to the treaty.

There are very serious questions, also, in terms of Russia's apparent walking back of things that were previously agreed to in the negotiations. They are walking them back now in technical discussions in the Hague.

So I think that we have a panoply of problems with Russia in terms of the CWC.

Mr. GAFFNEY. Senator, could I just add one point?

Senator HELMS. Sure.

Mr. GAFFNEY. A gentleman by the name, I believe, of Michael Waller has done some very interesting investigative reporting into this issue, has dealt with a number of Russian scientists who, at considerable peril, have been willing to come forward and alert the West to the fact that there are, indeed, ongoing chemical weapons development and production programs in Russia, as we speak.

Some of them, according to these scientists, involve exotic new technologies, new formulas that may be, essentially, untraceable, undetectable. How much credit you give these, I think, is up to you.

But again, I believe it is an argument for broadening the scope of these hearings and inviting people who have had direct contacts, maybe even bring in some of these scientists themselves. I believe there are some who have been involved in the program until fairly recently who are now living in the United States.

I strongly recommend that this committee take testimony from one country that we all can agree has an enormous offensive chemical weapons potential, and has evidently decided in this area, as in others, not to honor its obligations even to a bilateral agreement with the United States, let alone the future CWC.

It is a profoundly important issue. And I argue it ought not to be simply dealt with at the end of this particular hearing.

Senator HELMS. This hearing should not be the end of it, based on what you have just said. And I thoroughly agree with you on that.

He made the suggestion that we have a further hearing. And I agree with that. I will formally request such a meeting in writing, Mr. Chairman.

Ms. SMITHSON. Senator Helms—

Senator HELMS. Yes, ma'am.

Ms. SMITHSON, [continuing]. May I comment on this issue, please?

Senator HELMS. Please.

Ms. SMITHSON. I share the concerns about some of the charges that have been made about Russia and the possibility that they may have developed a new generation of nerve agent.

I also share the concerns that there have been charges that they have been dumping chemical weapons in order to reduce their stockpile to get it down to the level which the Soviet Union declared a few years ago.

But without this Convention, at the end of the day, we do not have the tools to find out what is going on inside Russia unless we can take inspectors in there and look at it ourselves.

Right now, what we have are charges. I do not know whether they are true or not. I would like to find out. And absent this Convention, I would ask, how do we find out?

Mr. GAFFNEY. No. But Senator, the real point is, with this Convention, you cannot find out.

Ms. BAILEY. That is exactly right.

The inspectors under the Chemical Weapons Convention will have what is called a library of chemicals for which they will be looking. They will not be permitted to look for other things, such as novel chemical agents. That is what Russia has been developing. We do not have the authority or even the tools, at this point in time, to go and look for the kinds of agents that the Russians are developing.

Senator HELMS. Nor will you have it under this provision.

Ms. BAILEY. Absolutely not.

Senator HELMS. Is that the point you make?

Ms. BAILEY. Exactly.

Senator HELMS. Do you agree with that?

Mr. LEHMAN. No. I do not.

Senator HELMS. All right.

Mr. LEHMAN. I think that it is true that you develop procedures for your inspectors. And those can be built around the schedules of inspection, but the fact is the CWC prohibits any of these activities. If it is so novel that we do not know about it, we have got a problem.

On the other hand, that is one of the reasons why we have to continue our research into defensive measures and the whole concept, so that we have evidence of this.

Again, there is the unknown out there that we will never be able to find. But the fact that we are getting so many of these reports shows that it may not be as perfectly easy to hide all of this as people think in the world as it is today.

Mr. GAFFNEY. Senator, in the end, you are reduced to relying, as Kathleen said before you arrived, on an individual coming forward and giving you information.

This is not information that was developed by the U.S. intelligence community, which, in the absence of this treaty, has the responsibility to monitor these things.

This was a lucky break, much as we found with Saddam Hussein's nuclear weapons products. We got a lucky break from a defector or somebody who was willing to spill the beans. But in the end, I am afraid that what we are dealing with here is placebo.

It will provide a false sense of security. It will provide mechanisms that we are told will be effective when, in fact, they will not.

Now, you can argue that they are better than nothing. I do not believe that is true.

I think the false sense of security is worse than having none, because, in the end, as we have seen with the Biological Weapons Convention—and I think other treaties that I have noticed, some of which you have been highly critical of, properly so—you have gotten people coming forward and saying, "Well, you know, we cannot rush to judgment on this. The evidence is not conclusive. You cannot render a finding of a violation, because that would disturb the arms control process."

This is a highly corrosive effect, I believe, on the confidence that the public should have in treaties, and in the value of these treaties.

Ms. SMITHSON. Senator Helms, right now, we are reduced to relying on the word of two people, Mr. Mirzayanov and Mr. Fyodorov.

I do not know whether or not they are telling the truth. I do not know that I want to trust them. Why do we not go and find out for ourselves?

Second of all, if there are novel agents that they have developed, this treaty provides for the schedules of prohibited agents to be amended. And they will be banned if they have been developed.

We cannot predict what science will do. But we can and have created a treaty that can adopt to it. Thank you.

Senator HELMS. I think that what bothers me is that this Convention does not even propose to cover what, Libya or Iran, North Korea. Frank, is that correct?

Mr. GAFFNEY. No. It proposes to. It is just that they have declined, to this point, to participate.

Senator HELMS. Yes. Yes.

Ms. SMITHSON. And should we let our foreign policy be dictated by what other countries do? I think we have to establish a policy and pursue it over the long term. We have to establish a behavioral norm and laws that make sure that this behavior is outside of law.

Mr. GAFFNEY. Well, Senator, let me say, it is not a question of allowing our foreign policy to be dictated. It is allowing our national security policy to be dictated.

And you know, Samuel Johnson had a wonderful expression for the phenomena of second marriages that points perfectly to this one.

He called it: the triumph of hope over experience.

Our experience with these kinds of "international norms" is that, in the end, that they do not have the desired effect. They prove more constraining on us than on others. We wind up engaging in, what amounts to unilateral disarmament.

Our foreign policy and our national security policy wind up being dictated by the international norm. And it has precious little effect, precious little valuable effect, I should say, on the people we are trying to constrain.

Ms. SMITHSON. Senator Helms, I would point out that if you aim high, as this treaty does, you may end up falling a little bit short. But if you aim low, you will get exactly what you deserve.

Mr. GAFFNEY. And if other people are aiming at your heart, you are going to get killed, Senator. [Laughter.]

Senator HELMS. Mr. Chairman, I do not know how spirited the discussion was in the first panel [laughter] but I thank all four of these folks. I am not given to spending a lot of money around this place. But I would like for the testimony of both panels to be printed. Would the Chair agree to do that?

The CHAIRMAN. At your request, we would be glad to.

Senator HELMS. I do. I request that.

Mr. GAFFNEY. May I ask one other favor, Senator?

Senator HELMS. Sure.

Mr. GAFFNEY. We have done, at the center, a number of analyses of this treaty and its negotiating history. If I may submit those for the record, not necessarily to be printed in whole, but to have them as part of your record, I would—

Senator HELMS. I would like to have everything available so that the Senators, whether they get time to read it or not, they will at least have it available to them. So—

Mr. GAFFNEY. Thank you.

[The material referred to may be found in committee files.]

Senator HELMS. I, personally, thank you very much. And again, I apologize for having the Rules Committee thing which involves changing the rules of the Senate. I did not want to see that happen either.

Ms. BAILEY. Senator Helms?

Senator HELMS. Yes.

Ms. BAILEY. Could I ask a favor as well? Frank Gaffney suggested that the Russians who have come forward on the issue of chemical and biological weapons be included in a panel of discussion or testimony here.

I think it would also be extremely valuable if you were to bring technologists, such as from my laboratory, who have done research on whether or not it would be simple to circumvent the verification measures proposed by producing novel agents.

When I circulated my testimony at my laboratory to get input from the technologists, from the chemists, the medical doctors and so forth that work there, one of them said to me, "I think this is just wonderful that you are bringing this out, because I have been working on the Chemical Weapons Convention verification process and I am convinced that, personally, my own laboratory could easily circumvent the inspection regime." I think that these technical people ought to be heard from.

Mr. GAFFNEY. A final point, Senator. Before you arrived, Kathleen read a very important quote from one of the—I do not believe it was rendered here, but from a previous comment by one of the panelists in the previous session, a representative the Chemical Manufacturers Association, Will Carpenter, to the effect that there are "60 to 80 trade associations whose members will also be regulated by this new Convention's national authority. An overwhelming number of these companies are not aware of the implications of the CWC for them."

I do not know how you get at this problem, because what you do not know, you do not know. But I believe that this committee has a responsibility, if only because I believe a great many members of the Senate are going to hear outraged protests from their constituents who have no idea that they were considered to be chemical manufacturing concerns for the purposes of this treaty simply because they are dry cleaners or they are involved in fertilizer or pharmaceuticals that may simply use chemicals in their industrial activities.

Those people ought to have a chance both to be exposed to what this treaty means for them, and what it means for the rest of us. And I will—I would hope that you might, as long as you are looking at this comprehensively, invite them as well.

Senator HELMS. You bet.

Ms. SMITHSON. Senator Helms, I did a study on just this. So if I might have a minute, I would like to—

Senator HELMS. Certainly.

Ms. SMITHSON [continuing]. Capture for you the essence of the study that I did on just this subject.

I, too, was concerned that there are a number of chemical companies out there that have not yet been informed that this treaty will be implemented. So I contacted a number of them.

Over the course of 2 days, I walked through every single one of the Convention provisions with senior managers from chemical industry representing multinational corporations, as well as mom-and-pop shops employing 30 or 40 people.

And to an individual, they all told me that they could support this treaty's implementation at the end of the day. It came as somewhat of a surprise, because they do not think of themselves as being associated with the manufacture of chemical weapons that indeed, a treaty of this nature would cover their activities.

But once they understood the rationale, once they understood the protections that are built into the treaty to protect their confiden-

tial business information, they told me that the implementation of this treaty would not be anymore of a burden than the implementation of other environmental and health and safety regulations in the United States.

Ms. BAILEY. That is a highly selected group, very highly selected group.

Senator HELMS. And it took 2 days to get to that point.

Ms. BAILEY. What about inviting the Pharmaceutical Manufacturer's Association?

Senator HELMS. I have only two ears. Now what did you say?

Ms. BAILEY. The Pharmaceutical Manufacturer's Association is a key agency here that ought to be invited for their views.

An official of that association has gone on record with the publication that was recently published by my laboratory saying that the inspections, the challenge inspections, present a clear danger to the pharmaceutical and biotechnology industries in the United States. And this has not been properly vetted.

Now, I do not know which companies Ms. Smithson has addressed, but I know for sure that there are major firms, such as Eli Lilly that are very, very nervous about this.

Mr. GAFFNEY. Let me say, Senator, I am quite sure—and this is no criticism of Ms. Smithson—I am quite sure that everyone of those companies, the managers that she involved in this exercise, like I think the Chemical Manufacturers Trade Association and various others is wrestling with what are the costs to me?

What are the burdens to my company? What will we have to do to protect ourselves, our proprietary information, and so on?

They are asking this in the context of the contention that this treaty is an important contribution to world peace, that it will rid the planet of chemical weapons. In other words, it appears to be the kind of sacrifice which Americans are always prepared to make for a high calling.

But what I would suggest to you, sir, is that, in fact, that calculation, that burden, that cost, that bureaucratic nightmare takes on a wholly different look, and should.

If in the end what you have is an agreement, a treaty that is not effective, that will not rid the world—will not rid any place for that matter, I believe, except, quite certainly the United States of America, of chemical weapons. And this is the root of the problem.

I think that this community probably needs to be talked to by others. And I suspect you will find a diversity of opinion among it, as you will in most communities.

But I would very much hope that it would be in the presence of people who can also talk about, "Would the sacrifice make a difference?"

And that is the challenge to you all.

Senator HELMS. Mr. Chairman, if you would?

The CHAIRMAN. Before we get too high up in the stratosphere on all of this, let us begin by recognizing that there is always somebody out there that did not get the word.

The Pharmaceutical Manufacturer's Association has been associated with discussion of Chemical Manufacturer's Association since long before we concluded this treaty. There are industry people out there who have not gotten the word.

We went through this in dealing with the national security community. It was a fascinating experience.

I went through it for about 10 years, watching how almost hysteria went out there in much of the community because they did not understand what, in fact, were the protections that they would have.

And they were not sure what they were going to be faced with. But since it was a moving train, one can understand that.

But we ended up with a large number of analyses of what would happen that are no longer applicable to what, in fact, is likely to happen under the Chemical Weapons Convention. But I do not want to tell you there are no costs. And I certainly do not want to tell you there are no risks. There are.

What I want to say is I think we have managed those very well. And in fact, the way, I think, to approach this prudently is not to take what any beltway bandit charges—says it will charge you—it will cost you to protect yourself, but rather go out and say, "Look, I am going to go first for the low cost, conservative way to make sure I am protected. And if somebody thinks that is not enough, we can work from there."

I think we ought to approach this rather as a business manager would. You have got a risk. You have got some concerns. You are going to have to consult with people. But in the end, you look out for your interests. And if we have got a problem, we have got a problem. And we will figure out how to resolve it.

Thank you.

Mr. GAFFNEY. The question really is not for the individual, I suggest, as well as for the country. I think the risks and costs, I think there are points that we can agree upon. The question at risk—that really is root here is: What are the benefits?

And I suggest to you that they are vastly overstated. And what we are seeing is a debasing of the currency of these arms control agreements by the inflation of the expectations and the representations being made for them. This one cannot deliver, sir.

The CHAIRMAN. Thank you very much. I think it would be appropriate if Mr. Will Carpenter, who was with us on the first panel who is the representative of the chemical industry, have a word here if he would like to.

Mr. GAFFNEY. Sir, a portion of the chemical industry, I suspect is correct.

The CHAIRMAN. OK, Mr. Carpenter.

Is he still here? There. Would you like to say a word or two here? Please.

Dr. CARPENTER. As with any regulation or legislation that impacts regulation on the chemical industry, most of us get up in the morning and worry about what is facing us today.

However, the Chemical Manufacturer's Association, for the last 5 years, has invited, routinely, other members of trade associations to participate in our monthly discussions in meeting with various government officials.

To that end, we have had a representative of the Pharmaceutical Manufacturer's Association as a regular member of our committee for the last 4 years.

More recently, as this thing gets closer to reality, we have had the chemical distributors. We have had the Textile Manufacturer's Association. We have had the National Agricultural Chemical Association. We have had the Specialty Organic Chemical Manufacturer's Association. And we have made progress in that line.

However, it is going to take an education process to bring these people up to speed, because it is one thing for a chief executive officer of a large or a small organization to say, "I have heard what you said. My company is in favor of that."

And at the same time, he has got six plant managers that would be utterly surprised that his company has gone on record for doing that.

So one of the things that both I took and CMA, as well as others have tried to do over the last 2 years, is bring the industry up to speed. And that is going to take a lot of effort.

However, of all of the industry people that I have talked to over the last 15 years in bringing them up to speed on what is involved with the industry, if I start with the premise that we are going to try and get rid of chemical weapons, with some degree of effectiveness, and in order to do that, it must have verification.

And in order to—it is a tradeoff of how much do you want to know Saddam is doing versus how intrusive do you want to be on my company's policy.

To be completely intrusive, you would almost have to shut down the chemical industry to get to know absolutely everything Saddam Hussein is doing. In other words, a regulation or a treaty that would allow that.

So we have got a tradeoff here that we think industry can accept. Every industry person I have ever talked with, from a plant manager to a chief executive officer says, "We are hitting the right balance of intrusion into the chemical industry with some—with firm attempts and success to protect our intellectual property, our confidential business information and at the same time, having it intrusive enough that we substantially increase the odds of knowing what is going on in those countries that we suspect."

I am just suggesting that the premise is wrong, Mr. Chairman. The premise that has been put to these companies is wrong.

The CHAIRMAN. Well, that is your view.

Dr. CARPENTER. No. That is my view, sir. And I am suggesting that if that is the case, then you get a different answer from the companies.

The CHAIRMAN. We hear you.

Dr. CARPENTER. Let me say we have never thought that what we were getting into, what we were committing to was going to be 100 percent effective.

All you are doing is you are trying to increase the odds in favor of eliminating chemical weapons. And we think it is a mutual mechanism for doing so. Thank you.

The CHAIRMAN. We hear you. We thank all of you for being with us.

Dr. CARPENTER. Thank you, sir.

The CHAIRMAN. Ms. Smithson, Ms. Bailey, Mr. Gaffney, Mr. Lehman, and Mr. Carpenter. This hearing is now adjourned.

[Whereupon, at 12:30 p.m., the committee adjourned, to reconvene at 10:05 a.m., June 23, 1994.]

CHEMICAL WEAPONS CONVENTION (TREATY DOC. 103-21)

THURSDAY, JUNE 23, 1994

U.S. SENATE,
COMMITTEE ON FOREIGN RELATIONS,
Washington, DC.

The committee met, pursuant to notice, at 10:05 a.m. in room SD-419, Dirksen Senate Office Building, Hon. Claiborne Pell (chairman of the committee) presiding.

Present: Senators Pell, Lugar, Kassebaum, and Jeffords.

The CHAIRMAN. The Committee on Foreign Relations will come to order. This morning we continue our series of hearings on the Chemical Weapons Convention. This Convention was concluded by the Bush administration and opened for signature January 13 of last year.

The United States is an initial signatory. The Convention was submitted to the Senate by the Clinton administration last November 23, just as we were adjourning.

Today's hearing was preceded by hearings with Secretary Christopher and representatives of ACDA, the negotiators, the civilian leadership of the Department of Defense, by military leaders, representatives of the Central Intelligence Agency, outside experts, and opponents to ratification of the Convention.

This morning our committee will hear from General Shalikashvili, the Chairman of the Joint Chiefs of Staff; the Honorable James Woolsey, the Director of the CIA; and the Honorable John Holum, the Director of the ACDA.

Our committee will be interested in the general's views on whether the Convention is in the national security interest of the United States, whether it is consistent with our chemical weapons reduction program, whether the U.S. military needs chemical weapons as weapons of war, and whether there will be adequate warning of any militarily significant violations of the Chemical Weapons Convention.

Also, we will hear Director Woolsey's views regarding verification and the intelligence community's support of the Chemical Weapons Convention, and Director Holum's views as to why the administration believes it is in the interest of our national security to proceed with the ratification of this treaty.

Finally, there have been news reports regarding Russian efforts to develop binary chemical weapons as recently as in today's New York Times. Today, the committee will want to know what the witnesses can share in open session about these reports.

In addition, we want your views as to whether the ratification of this Convention by the United States and by Russia will increase our ability to detect such efforts if true, and take steps to force disclosure and destruction. I will turn now to the ranking member, Senator LUGAR.

Senator LUGAR. Thank you very much, Mr. Chairman. I am pleased to welcome, along with you, our witnesses this morning.

You have mentioned that the committee has heard previously from representatives of the Department of Defense, the intelligence community, and ACDA on this Chemical Weapons Convention.

This morning, however, we go to the top with testimony from the Chairman of the Joint Chiefs, the Director of Central Intelligence, and the Director of ACDA.

I want to thank you, Mr. Chairman, for supporting this request to, in essence, rehear representatives from various governmental agencies on issues associated with the CWC.

For example, as I have noted on various occasions, I did not believe that the intelligence community made its case forcefully or well the first time around. Our closed hearing last week helped to answer many of the remaining questions in the minds of members.

What had been missing in previous testimony was an effort to put the judgments of the intelligence community and the U.S. military, relative to verification and monitoring issues, as well as the impact of militarily significant violations, in a larger political and negotiating context over time.

Policy decisions were made during the course of the CWC negotiations that impacted on the resulting verification regime, as well as on the military's retaliatory capability to chemical weapon threats, and thus on the requirements of the intelligence community and the U.S. military.

Mr. Chairman, we may have to go back to square one again and again. Last week in closed session we discussed charges that Russia is proceeding with the development of advanced chemical weapons in a binary form despite its commitment to disclose details on past and present efforts to develop, produce, and stockpile chemical weapons.

As you noted, in this morning's New York Times there are reports that American intelligence has long concluded that the Russians have worked to develop binary chemical weapons and that Moscow has never formally acknowledged the effort.

These concerns have also surfaced from Russian sources. Russian scientists familiar with the Russian program have charged that Moscow has not only developed binary weapons, but produced an especially potent type.

In the New York Times report, an unidentified administration official is quoted as saying that, "our preliminary assessment is that the Russians have not disclosed information about what we believe to be a binary chemical weapons program."

Moreover, it is clear from my own conversations with Russian officials that Moscow is well aware of American concerns in these areas, and that some Russians are indeed concealing data about the program.

Mr. Chairman, I have said on numerous occasions that this committee should not be rushed in its deliberations on the CWC by any

artificial deadlines. But unless the administration can deal effectively and persuasively with these charges of a Russian binary chemical weapons program, consideration of the CWC will and should slow down for further review and attention.

I am hopeful that our witnesses this morning can address themselves to this and other issues, for without satisfactory answers, other issues related to the Convention may become academic.

Thank you very much, Mr. Chairman.

The CHAIRMAN. Thank you very much indeed, Senator Lugar. I think we will start out, if we may, with General Shalikashvili. General?

GENERAL JOHN M. SHALIKASHVILI, USA, CHAIRMAN, JOINT CHIEFS OF STAFF

General SHALIKASHVILI. Thank you very much, Mr. Chairman, members of the committee. I have a written statement that I would like to submit for the record with your permission. I would also like to make a few oral comments.

The CHAIRMAN. Without objection.

General SHALIKASHVILI. I am pleased, of course, to be here today in order to respond to this committee's questions regarding the Chemical Weapons Convention, and to address the Convention's impact on the U.S. military.

This Convention represents a significant milestone in arms control, and it bans an entire class of weapons of mass destruction. In so doing, the Convention has an impact on how the U.S. military fulfills its responsibilities to national security.

Issues relating to chemical weapons deterrence, retaliation, and militarily significant violations of the Convention must all be evaluated in determining whether or not the Convention is in our national interest.

The Joint Staff played an integral part in negotiating the Convention. Military representatives were part of the U.S. delegation in the negotiating process. As such, we are well-acquainted with the relative advantages and shortcomings of the Convention and its implications for the U.S. fighting forces.

Central to these implications is the ability to deter and defend against a chemical weapons attack while forswearing the use of chemical weapons.

The most significant advantage derived from the Convention is the potential elimination of chemical weapons by state parties. On the Convention's entry into force, all state parties will be obligated to destroy their chemical weapons stockpiles.

Currently, regardless of the Convention, the U.S. Army is required by national legislation to destroy by the year 2004 the vast majority of stockpiled U.S. chemical weapons.

The Convention's imposition of an internationally recognizable obligation to destroy all chemical weapons essentially places all other CW-capable state parties on an equal footing with the United States.

Because of the Convention's trade restrictions and provisions, would-be proliferators outside the Convention may find it increasingly more difficult to acquire the chemical precursors essential to building chemical weapons stockpiles.

While the Convention's verification provisions allow for compliance monitoring by the Organization for the Prohibition of Chemical Weapons, its national implementation will require a significant effort by the U.S. military.

All chemical weapons-related facilities would be susceptible to routine declaration and verification. These include storage facilities in 10 geographic areas, production facilities in 6 geographic areas, the 2 existing destruction facilities, and those destruction facilities that are yet to be built.

Additionally, all military facilities both within the United States and overseas will be susceptible to short notice challenge inspections.

With the assistance of the On-Site Inspection Agency, the services have been preparing their facilities for the receipt of both multilateral and bilateral chemical weapons inspections.

In the past, the United States has relied upon its chemical weapons stockpile in an active chemical weapons defense to deter chemical weapons use against U.S. forces. However, in May 1991, President Bush clearly identified the U.S. commitment banning chemical weapons, giving up its CW deterrent when he stated that we are formally forswearing the use of chemical weapons for any reason including retaliation against any state effective when the Convention enters into force.

This decision was based on the belief that banning chemical weapons is more important to national and international security than the possible threat of retaliatory use.

The U.S. military's ability to deter chemical weapons in a post-CWC world will be predicated on a robust chemical weapons defense, and the ability to rapidly bring to bear superior, overwhelming military force.

The question of what constitutes a militarily significant violation of the Convention may, from any operational perspective, be viewed as determining a militarily significant quantity of chemical weapons.

However, precision in this statement does not readily translate to a single, quantifiable answer. Militarily significant quantity of chemical weapons is very situationally dependent. Variables involved in determining this quantity are the military objective, weather, terrain, number of troops, type of chemical agents used, the chemical agent weapons system, and method of employment. And, in the chemical weapons defensive capability, the targeted force.

Various scenarios have been examined, and threat assessments have been developed examining this issue. Quantity is totally scenario dependent. To cite a specific amount as being militarily significant would be imprudent and misleading.

During Desert Storm, the mere threat of a chemically tipped scud missile landing among allied forces had a dramatic political and emotional effect.

Desert Storm proved that retaliation in kind is not required to deter the use of chemical weapons. U.S. forces are the best equipped and trained forces in the world. A robust chemical and biological defense program, coupled with an outstanding nonchemical retaliatory capability second to none, will impact the decision proc-

ess of any would-be aggressor contemplating using chemical weapons against U.S. forces.

From a military perspective, the Chemical Weapons Convention is clearly in our national interest. The Convention's advantages outweigh its shortcomings. The United States and all other CW-capable state parties incur the same obligation to destroy their chemical weapons stockpiles.

While less than perfect, the verification regime allows for intrusive inspections while protecting national security concerns.

The nonproliferation aspect of the Convention will retard the spread of chemical weapons, and in so doing reduce the probability that U.S. forces may encounter chemical weapons in a regional conflict.

Finally, while forgoing the ability to retaliate in kind, the U.S. military retains the wherewithal to deter and defend against a chemical weapons attack.

I strongly support this Convention and respectfully request your consent for ratification.

Thank you very much, Mr. Chairman.

[The prepared statement of General Shalikashvili follows:]

PREPARED STATEMENT OF GENERAL SHALIKASHVILI

INTRODUCTION

Mr. Chairman, members of the Committee, I am pleased to be here today to respond to this Committee's questions regarding the Chemical Weapons Convention (CWC) and to address the Convention's impact on the U.S. military. This Convention represents a significant milestone in arms control in that it bans an entire class of weapons of mass destruction. In so doing, the Convention has an impact on how the U.S. military fulfills its responsibilities to national security. Issues relating to chemical weapons deterrence, retaliation, and militarily significant violations of the Convention must all be evaluated when determining whether its ratification is in our national interests.

The Joint Staff played an integral part in negotiating the Convention. We provided military representatives to the U.S. Delegation during the negotiation process. Therefore, the Joint Staff is well acquainted with the Convention's relative advantages and shortcomings and its implications for the U.S. fighting force. Central to these implications is the ability to deter and defend against a chemical weapons attack while foreswearing the use of chemical weapons. However, the answer to the question of militarily significant violations of the Convention cannot be determined from the body of the Convention text. There are numerous variables that affect this assessment and a quantifiable value is not easily derived.

ADVANTAGES OF THE CWC

The most significant advantage derived from the Convention is the potential elimination of chemical weapons by state parties. Upon the Convention's entry into force, all state parties will be obligated to destroy their chemical weapons stockpiles. Currently, regardless of the Convention, the U.S. Army is required by national legislation to destroy by the year 2004 the vast majority of the U.S. chemical weapons stockpile. The Convention's imposition of an internationally recognizable obligation to destroy all chemical weapons essentially places all other CW capable state parties on an equal footing with the U.S.

Three quarters of the countries that possess or seeks to acquire chemical weapons programs are signatories to the Convention. While this does not imply that they will all ultimately become parties to the Convention, it does indicate a near universal acceptance of the Convention's objectives. The list of signatories includes the Russian Federation, which possesses the world's largest declared chemical weapons stockpile. The eventual destruction of approximately 40,000 tons of declared Russian chemical weapons will significantly reduce the chemical threat faced by U.S. forces. Currently the U.S. is the only state that is systematically conducting an ongoing chemical weapon destruction program.

Another advantage of the Convention is a verification regime that allows the international Organization for the Prohibition of Chemical Weapons (OPCW) to routinely monitor a state party's compliance. The verification regime strikes a balance between intrusion and the protection of sensitive U.S. interest. The regime allows military commanders to protect classified information, equipment, and facilities unrelated to the Conventions.

The Convention is both an arms control agreement and a nonproliferation regime that restricts trade in specified chemicals to member states. Because of the Convention's trade restrictions and provisions, would-be proliferators will find it increasingly difficult to acquire the chemical precursors essential to building a chemical weapons stockpile. Signed by 157 states, including the major industrialized states, the Convention will help to defuse regional instability by reducing every state's ability to acquire a chemical weapons stockpile.

EFFORT REQUIRED BY THE CWC

While the Convention's verification provisions allow for compliance monitoring by the OPCW, its national implementation will require a significant effort by the U.S. military. First, all chemical weapons related facilities will be subject to routine declaration and verification. These include storage facilities in 10 geographic areas, production facilities in 6 geographic areas, the 2 existing destruction facilities, and those destruction facilities yet to be built. Second, all military facilities, both within the U.S. and overseas, will be susceptible to short notice challenge inspections.

All the Services have been preparing their facilities for both multilateral and bilateral (U.S./Russian) chemical weapons inspections. With On Site Inspection Agency's assistance, they have conducted mock inspections and table-top exercises. These mock inspections have proven that while CWC inspections may be costly in terms of personnel and resources, U.S. facilities can still protect themselves against the disclosure of national security information and information on sensitive equipment and facilities, unrelated to Treaty requirements.

Additionally, chemical weapons data declarations have been prepared by the Services and Joint Staff and exchanged with Russia in compliance with the 1989 Wyoming Memorandum of Understanding. Compiling these declarations provided the Services an excellent opportunity to develop the expertise and the data base required to comply with the Convention's declaration requirements.

DETERRENCE AND RETALIATION

In the past, the U.S. has relied upon its chemical weapons stockpile and an active chemical weapons defense to deter chemical weapons use against U.S. forces. However, in May 1991 President Bush clearly identified the U.S. commitment to banning chemical weapons and giving up its CW deterrent when he stated, "We are formally forswearing the use of chemical weapons for any reason, including retaliation, against any state, effective when the Convention enters into force." This decision was based on the belief that banning chemical weapons is more important to national and international security than the possible threat of retaliatory use.

The U.S. military's ability to deter chemical weapons in a post CWC world will be predicated upon both a robust chemical weapons defense capability, and the ability to rapidly bring to bear superior and overwhelming military force in retaliation against a chemical attack. First, a chemical weapons defense program is essential not only to protect U.S. forces but also to ensure their combat effectiveness in a chemical environment. A well trained and protected force is not as vulnerable to a chemical weapons attack as a force lacking these essential attributes. These factors would naturally impact the decision of any would be aggressor when contemplating the use of chemical weapons against U.S. forces.

Second, while the U.S. will forego CW retaliation in kind upon the Convention's entry into force it still retains a retaliatory capability second to none. Desert Storm proved that retaliation in kind is not required to deter the use of chemical weapons. Should deterrence fail, a chemical attack against U.S. forces would be regarded as an extremely grave action subject to an appropriate non-chemical response of our choosing. As was stated by then Secretary Cheney during the Gulf War the U.S. response to a chemical weapons attack would be "absolutely overwhelming" and "devastating."

MILITARILY SIGNIFICANT VIOLATIONS

The question of what constitutes a militarily significant violation of the Convention should, from an operational perspective, be focused on defining what is a militarily significant quantity of chemical weapons. Unfortunately redefining the question does not make answering it any easier.

What constitutes a militarily significant quantity of chemical weapons depends on a number of factors: the military objective, weather, terrain, number of troops, type of chemical agent used, the chemical agent weapon system and method of deployment, and the chemical weapons defensive capability of the targeted force. The quantity of chemical weapons sufficient to prevent a U.S. mechanized infantry company from defeating an equivalent force would be woefully inadequate to interdict a logistics node such as a U.S. naval port of debarkation.

Various scenarios have been examined and threat assessments have been developed examining this issue. In 1987 the Joint Staff conducted a risk assessment based on a hypothetical scenario, the use of a relatively small quantity of chemical weapons employed by an aggressor force. The scenario's list of notional targets included key logistics nodes and airfields. Factoring in some of the variables mentioned above it was assessed that the aggressor could hit numerous targets several times a week with a persistent nerve agent for multiple weeks with only 1,000 agent tons. The hypothetical attack resulted in a degradation of allied reinforcement and resupply operations. This degradation resulted from diverted shipping at seaports, delays in transshipping at rail nodes, and reinforcements diverted at airfields.

A similar scenario was evaluated by the U.S. Army Concept Analysis Agency in 1989. It involved the targeting of sea and air ports of debarkation with a chemical attack. The study assessed that several hundreds of tons of the thickened persistent nerve agent could reduce by a significant percentage the arrival of military units into the theater. Assumptions included data concerning the return to duty rates, civilian work force recruitment rates and size, timing of chemical attacks and non-availability of chemical protective clothing for the civilian work force.

Several other studies have shown that smaller quantities of chemical weapons may be significant. The Institute for Defense Analysis evaluated the effects of both hypothetical and real chemical weapons use in the Third World between Third World countries. In 1983 Iraq achieved some tactical success by using chemical weapons against largely unprotected Iranians. This stopped the Iranian attack, but Iraq did not exploit its success. Iraq employed tens of tons of chemical weapons during a one month period. Chemical weapons did not, however, "win" the Iran-Iraq war for Iraq.

During Desert Storm the mere threat of chemical tipped SCUD missiles landing in Israel or among allied forces had a dramatic political and emotional effect. If a chemical attack had actually occurred, the Israeli and allied reaction to this essentially political act could have resulted in a militarily significant outcome.

Even when chemical weapons are not introduced into the battlefield, their threat of use impacts upon our military. Operating in a potential chemical environment affects logistical planning. Protective equipment displaces other commodities on cargo carriers and NBC defense units replace combat units in deployment plans. Protective equipment worn by military personnel for prolonged periods in a hot environment can degrade their performance.

Once the Convention enters into force, State Parties will be restricted to a national aggregate of one metric ton of Schedule 1 chemicals for permitted purposes such as research, medical, pharmaceutical, or protective purposes. Quantities in excess of this amount could have a political significance. In certain limited circumstances even one ton of chemical agent may have a military impact. For example, if chemical weapons are used as a weapon of terror against an unprotected civilian population in a regional conflict.

An important variable in determining what constitutes a significant quantity of chemical agent is the targeted force's level of preparation. U.S. forces are the best equipped and trained forces in the world. The Defense Department maintains and is committed to maintaining a robust Chemical Biological Defense program. The program seeks to protect U.S. forces under all possible conditions of deployment.

These scenarios demonstrate that a militarily significant quantity of chemical weapons is situationally dependent. Thousands of tons of chemical agent would be required to significantly impact a large scale engagement, while a mere ton of agent could be effective as a weapon of terror. With such variables in scale of target and impact of chemical weapons, the U.S. should be resolute that the one ton limit set by the Convention will be our guide.

CWC IN THE NATIONAL INTEREST

From a military perspective the Chemical Weapons Convention is clearly in our national interest. The Convention's advantages outweigh its shortcomings. The U.S. and all other CW capable state parties incur the same obligation to destroy their chemical weapons stockpile. While less than perfect, the verification regime allows for intrusive inspections while protecting national security concerns. The non-

proliferation aspects of the Convention will retard the spread of chemical weapons, and in so doing, reduce the probability that U.S. forces may encounter chemical weapons in a regional conflict. Finally, while foregoing the ability to retaliate in kind, the U.S. military retains the wherewithal to deter and defend against a chemical weapons attack. I strongly support this convention and respectfully request your consent to ratification.

The CHAIRMAN. Thank you very much indeed, General. I would now like to turn to Mr. Holum for his statement.

STATEMENT OF HON. JOHN D. HOLUM, DIRECTOR, UNITED STATES ARMS CONTROL AND DISARMAMENT AGENCY

Mr. HOLUM. Thank you, Mr. Chairman. I also have a prepared statement that I would like to insert in the record and to speak briefly.

The CHAIRMAN. Without objection.

Mr. HOLUM. You have heard me testify on this issue before, so I will be very brief. I would like to underscore just three points.

The first is that our detection and monitoring capabilities will be enhanced by the CWC's verification routine. We will face the very difficult task of detecting clandestine chemical weapons activities with or without this Convention.

With the Convention, such steps as declaration and routine and challenge inspections will give us more information than we would otherwise have.

The second point is that the Convention will give us a tangible new use for that information. The existing rule, the 1925 Geneva Convention, does not proscribe possession of chemical weapons but only their use, and in most cases only their first use because of reservations.

So, without this Convention, even if we do detect a country developing chemical weapons, we have no legal recourse.

With the Convention in place, once we discover a chemical weapons program in a member country, which we will have a better chance of doing, we will also be able to challenge it as a violation of international law and seek sanctions which we cannot do now.

And my third point is that the effect of the CWC on the United States will be largely to globalize what we have already independently decided is in our national interest.

As General Shalikashvili has testified, we have concluded that the best military response to chemical weapons is not chemical weapons of our own, but chemical defenses combined with superior conventional weapons strategy.

Accordingly, our own law already requires the destruction of our unitary chemical weapons stockpile, and we have stopped production of all chemical weapons. So, the Convention will bind all parties who possess chemical weapons to do what we have already begun.

In sum, at a minimum, the Convention will enhance our ability to detect the chemical weapons threat, it will give us options we do not now have if the threat is uncovered, and it will not meaningfully constrain our own defense assets or strategy. That explains why both the Bush administration, which negotiated it, and the Clinton administration, which seeks its ratification, have concluded that this agreement clearly is in our national interest.

Mr. Chairman, I want to extend the administration's gratitude to you and the members of the committee and staff for advancing the ratification process. You have examined this complex agreement carefully but also in a timely way, aimed at the earliest possible entry into force.

Your diligent work is helping to confirm American leadership in recognizing the basic truths about chemical weapons—to make them is a waste, to keep them an affliction, to use them an abomination. To champion their destruction makes us at once more civilized and more secure.

Thank you for all of your efforts toward that end.
[The prepared statement of Mr. Holum follows:]

PREPARED STATEMENT OF MR. HOLUM

Mr. Chairman, thank you for asking me to testify today on the merits of the Chemical Weapons Convention. Stopping the proliferation of weapons of mass destruction is at the very top of President Clinton's foreign policy agenda. Achieving early ratification and entry into force of the Chemical Weapons Convention is a critical element of our nonproliferation efforts.

Your hearing today is a strong example of bipartisanship and continuity. President Bush's deep personal commitment to the cause of banning chemical weapons led the United States to conclude this treaty, which the U.S. signed seven days before he left office. Likewise, President Clinton has made the Convention a foreign policy priority of his Administration. At the United Nations last September, he called on all countries, including the United States to bring the CWC into force at the earliest possible time.

VERIFICATION

Mr. Chairman, my agency has a legal obligation to assess the verifiability of all arms control agreements to which the U.S. is a party. Congress wisely mandated in Section 37 of the ACDA Act, that "adequate verification of compliance be an indispensable part of any international arms control agreement." So I take with the utmost seriousness my responsibility to report to Congress the Administration's assessment of the verifiability of arms control agreements.

On March 23, 1994 I forwarded our Section 37 report on the CWC to Congress. This report reflected the consensus conclusion of the Executive Branch that the CWC is effectively verifiable and that its implementation is very much in the national security interests of the United States. Like the previous Administration, we have carefully reviewed the benefits and risks and have concluded that when the CWC's declaration and inspection provisions are in force, we will be in a better position than we are now to detect and identify, and therefore deter, clandestine chemical activities of other States Parties.

VERIFICATION WEAKNESSES

Both our Section 37 report and the IC's August 1993 National Intelligence Estimate reached similar conclusions on our capabilities to monitor compliance with the CWC. They both noted that we can monitor declared activities under the CWC with a moderate degree of confidence. And they both point out that detecting prohibited activities, especially on a limited scale, is extremely difficult, even under the Convention's inspection regime. There are many possible sites around the world, and it does not take a large facility to manufacture chemical agents.

However, these limitations on monitoring do *not* equate to a conclusion that the Convention is unverifiable. First, it is clear that a significant CW program of concern must go beyond small-scale production and storage. It must include development, testing, production, weaponization, storage, military training and other activities. Each additional step increases the risk of detection. The risk grows over time, as evidence from a variety of potential sources accumulates. The CWC verification regime will heighten that risk of discovery and potentially provide an additional source of evidence. The larger, more systematic and sustained the violation, the higher the probability that we will obtain evidence of the illicit CW activity. Clearly, a program of significant size and scope would be difficult to conceal.

Moreover, experience has shown that there are a number of ways we can learn about CW programs. In the past, the U.S. discovered illicit CW programs at least in part because we looked at things the proliferating country did not realize we were

monitoring. Prior to the Iran-Iraq war, Iraq acquired almost all of its precursor chemicals and most of its production equipment overseas. In each case, our information about these purchases triggered concerns about Iraqi CW production.

In addition, though the CWC regime applies universally, our major proliferation concerns are somewhat narrower. We will look hardest for chemical weapons—using existing national intelligence means, as supplemented and reinforced by the tools in the convention—in a relatively small number of countries where the danger is greatest.

And we will have those concerns and that monitoring responsibility whether or not the CWC is in force. So the crucial point is that the utility of our detection and monitoring capabilities will be enhanced by the CWC's verification regime. The Section 37 report notes that declarations received by the U.S. can provide a benchmark for assessing compliance with the CWC. If declarations are accurate and complete, they can contribute to confidence-building. If the declarations are inadequate, they can still provide indications of possible non-compliance and allow the U.S. to respond, either unilaterally or under the CWC, including the use of on-site challenge inspections.

The crucial point is that we will face the very difficult task of detecting clandestine activities of concern to the U.S. with or without the Chemical Weapons Convention. The Chemical Weapons Convention does *not* interfere in any way with the ability of our national intelligence means to assess treaty compliance or monitor activities of concern. Rather, the Convention supplements and enhances these abilities by providing capabilities not otherwise available.

The Administration is fully committed to ensuring that the Intelligence Community has sufficient resources to investigate suspicious chemical weapons activities. When supplemented by the required declarations and inspection regime of the CWC, our national intelligence resources unquestionably will have an enhanced ability to detect non-compliant activities.

A GLOBAL NORM AGAINST CW

Enhanced verification is given real meaning by another fundamental element of the Convention, which is that it makes even the *possession* of chemical weapons against the law.

The only existing international norm regarding chemical weapons, the 1925 Geneva Protocol, amounts to a pledge not to use chemical weapons. And as you know, reservations to the Geneva Protocol make even that a *no-first-use* norm, allowing chemical weapons use in retaliation. So under the existing regime, any country can legally develop, produce and stockpile chemical weapons. Even if we do detect a country developing chemical weapons, there is little we can do about it except worry and prepare defenses.

But the CWC gives us other, better recourse. It bans the acquisition, production, storage, transfer, and use of chemical weapons by any State Party. Thus, with the CWC regime in place, we will have both a better basis for detecting illicit CW activities *and* be able to challenge those activities as violations of international law.

SANCTIONS

The Convention also adds to the threat of detection the possibility of punishment and collective international sanctions. Countries not meeting their obligations under the Convention will face a demonstrable price. The Conference of States Parties can recommend the imposition of collective sanctions on a State Party engaging in illicit chemical weapons activities. It must bring particularly grave cases to the attention of the U.N. General Assembly and Security Council.

Over time, the CWC will also impose political costs on non-adherents. The Convention will have the weight of the world's governments and global institutions behind it. One hundred and fifty-seven countries have signed—approaching the level of global acceptance of the Nuclear Nonproliferation Treaty. That figure includes three-fourths of the countries we suspect of possessing chemical weapons or the ability to acquire them. The CWC thus establishes a global norm, unprecedented in scope, that is formalized in a solemn treaty obligation. Violation will bring on significant negative consequences from the international community.

CONTAINMENT OF PROLIFERATION

The Chemical Weapons Convention inhibits proliferation of chemical weapons in a number of ways. The increased probability of detection and potential for sanctions will serve to deter some potential proliferators from seeking chemical weapons. But should a State Party still choose to clandestinely produce chemical weapons, the Convention will focus a spotlight on its likely means for amassing a CW arsenal,

through the requirement for declarations and routine inspections of all chemical weapons production facilities and relevant chemical industry facilities. By denying these easy avenues of acquiring a CW capability, the Convention will extend the time and effort necessary for any acquisition program. It will severely complicate a State Party's ability to engage in CW production, while simultaneously raising barriers against the country's ability to sustain a clandestine program for any significant length of time.

Consider how the provisions of the CWC would work in concert in a hypothetical case. A country that ratifies with an unacknowledged chemical weapons program will first have to decide whether to be honest in its initial declarations, and get rid of the program. Its declarations will be verified, and its declared sites routinely inspected, so if it chooses to lie, a clandestine program will have to be set up away from recognized chemical facilities—but that would involve abnormal activity which might be detected. And the country's leadership will know that *any* site can be subject to a short-notice challenge inspection. It cannot be sure of all the means the OPCW and individual countries have of finding such sites or detecting the chemical activities. The greater the activity and the longer it continues, the more likelihood it will be found out. And if there is discovery, the country will be exposed as a violator of a binding international legal obligation, involving weapons the world has agreed are out of bounds—a situation clearly warranting economic and political isolation.

Thus, the CWC is expected to do what any good arms control regime seeks to do—detect significant violations, to be sure, but most importantly, *deter* violations. It embodies a global rule against chemical weapons activity, which we don't now have. It makes discovery of clandestine programs more likely. And it makes the consequences of discovery more painful. The declarations, inspections and possible sanctions, together, provide a web of detection and deterrence that will advance U.S. interests.

GLOBALIZING U.S. DECISIONS

It is also essential to keep in mind that the effect of the CWC on the U.S. will be largely to confirm and then globalize our own existing defense plans. The U.S., as you know, has already concluded that we do not need a chemical weapon deterrent to retaliate for the use of chemical weapons by other countries. The answer to the use of chemical weapons must rather be a full range of defensive measures—such as filtering systems for tanks and lightweight anti-chemical weapons gear—coupled with a strong conventional deterrent. The Persian Gulf War provided a convincing, real life demonstration that the U.S. military is highly capable of deterring or responding to chemical weapons threats with superior conventional military force and strategy.

The U.S. has already stopped its production of all chemical weapons and is legally obliged to destroy its unitary chemical weapons program. As we unilaterally dismantle our own chemical weapons, it makes sense to seek the destruction of other countries' chemical weapons as well. The Convention imposes binding obligations on *all* parties who possess chemical weapons to do what the United States has already begun to do.

THE UNITED STATES AS A STATE PARTY

The United States has already established a leadership role in the Preparatory Commission to establish the Organization for the Prohibition of Chemical Weapons. We are the leading country in developing detailed procedures and guidelines to implement the treaty's verification regimes. We are also actively molding the organization that will implement the international verification regimes and control the declaration data that all States Parties will provide.

The Executive Branch has strongly supported these efforts. Key members of the U.S. chemical industry have also given vital assistance.

Early ratification of the Chemical Weapons Convention will enhance this leadership role. It will send a clear signal to other countries that the United States stands firmly behind this Convention and its verification provisions, and that we are committed to ending the development and threatened use of CW.

Let me conclude, Mr. Chairman, by expressing my gratitude to you and to the Committee for your leadership in advancing the ratification process for this Convention. It is a far-reaching and complex agreement, with a number of unprecedented provisions, particularly in the area of verification. The Committee and its able staff kept themselves well-informed as the Convention was being negotiated, so you began with broad understanding of its provisions. And this year you have examined the completed agreement carefully, but also in a timely way, aiming toward the earliest possible entry into force.

This is the way the system should work. Through your diligent efforts, our nation's claim to leadership in chemical weapons arms control and nonproliferation is being preserved.

The CHAIRMAN. Thank you very much indeed for your words. Now, we turn to the Director of the Central Intelligence Agency, Mr. Jim Woolsey.

STATEMENT OF HON. R. JAMES WOOLSEY, DIRECTOR OF CENTRAL INTELLIGENCE

Mr. WOOLSEY. Thank you, Mr. Chairman.

Mr. Chairman and members of the committee, I welcome the opportunity to testify this morning on the Chemical Weapons Convention, the CWC.

A number of intelligence community representatives have already addressed in-depth the community's limited ability to monitor the provisions of the CWC and the difficulty of collecting and analyzing intelligence on chemical weapons programs. Last week, my Deputy Director for Intelligence, Mr. MacEachin, discussed with you the architecture that the Chemical Weapons Convention provides to encourage compliance and to deter noncompliance. Mr. MacEachin noted that the same architecture would assist the intelligence community in its mission of discovering and tracking chemical weapons programs. I would like briefly to review some of these points and the intelligence issues that you will want to consider as you deliberate ratification of the CWC.

The verification regime of the CWC is indeed the most comprehensive and intrusive of any arms control agreement yet negotiated. But, still, the chemical weapons problem is so difficult from an intelligence perspective that I cannot state that we have high confidence in our ability to detect noncompliance, especially on a small scale.

Nonetheless, we in the intelligence community do not forget that larger U.S. interests, both from a counterintelligence perspective and in protecting proprietary information and constitutional rights, played a major role in shaping the scope and nature of the CWC's inspection regime. Throughout the many years of the CWC negotiations, representatives of the intelligence community were fully consulted on these tradeoffs. The intelligence community participated in and supported the choices that were made.

That said, the intelligence community has the broader mission, with or without the treaty, of detecting the existence of, and assessing the threat from, chemical weapons programs of any country. This mission must be carried out regardless of whether we have the additional requirement to assess such activities against the provisions of a treaty. And it is to this broader mission that the CWC can make a contribution.

To the extent that the intelligence community has access to data declarations, conversion plans, inspection plans, and results stemming from the treaty's verification provisions, this will increase the amount of information available to us on the chemical weapons programs of states who are parties to the treaty. It also will provide a basis for comparison, with information obtained through our independent intelligence means, enabling us to look for clues and tipoffs from inconsistencies or omissions. We can refine efforts to

narrow our uncertainties about ongoing programs, and to assist the policy community in making its compliance judgments.

One question you might wish to consider is whether the CWC will act as a deterrent for some states party who might otherwise have initiated or retained chemical weapons programs. In our judgment, the answer is yes. Some nations who perceive a regional CW threat may be reassured by ratification of the CWC by potential adversaries and by the CWC's guarantees of international assistance if they are threatened, and thus, have further reason not to pursue offensive CW capabilities of their own. Other states may decide that it is too risky or too expensive to try to cheat for marginal strategic gain. These factors complement the nonproliferation goals of the Chemical Weapons Convention.

The CWC may also make it more difficult for states party to maintain clandestine CW programs because of the increased incentive it provides to people who are cognizant of CWC violations to make public their knowledge or to provide it, or frankly, to intelligence services such as our own.

The statements by the Russian scientist, Vil Mirzayanov, that Russia is continuing development, begun under the Soviet Union, of new chemical agents and binary chemical weapons that will not be captured by the CWC are an example of this phenomenon. Indeed, the Mirzayanov allegations have provided many fruitful leads in both intelligence and diplomatic channels.

The Chemical Weapons Convention will not, at least in the near term, rid the world of chemical weapons. Our intelligence mission of tracking the CW programs of states such as North Korea, Iraq, Libya, and other CW possessors who have not signed the CWC—the so-called outlaw states—will still continue.

The CWC will, however, strengthen our ability to deal with the problem that we confront with or without the Convention: the requirement to discover which states are developing and producing chemical weapons when these activities are difficult to distinguish from legitimate commercial endeavors. The isolation and adverse attention that nonsignatories will draw upon themselves may spur greater multinational cooperation in attempting to halt offensive CW programs.

In sum, what the Chemical Weapons Convention provides the intelligence community is a new tool to add to our collection tool kit. It is an instrument with broad applicability, which can help resolve a wide variety of problems. Moreover, it is a universal tool which can be used by diplomats and politicians, as well as intelligence specialists, to further a common goal: elimination of the threat of chemical weapons.

Mr. Chairman, that concludes my statement. I will be happy to respond to questions, including the questions that were alluded to in the opening remarks regarding the "New York Times" article of this morning.

Thank you.

The CHAIRMAN. Thank you very much, indeed.

I think we should limit ourselves to 10 minutes for Senators, and we will undoubtedly have a second round. And we may have more of our colleagues joining us.

I would first like to insert into the record, without objection, the article by Michael Gordon in the "New York Times" of today, and ask Director Woolsey, in connection with that article, whether he feels that it has validity and whether ratification of this Convention by the United States and Russia will increase our efforts to detect efforts described in this article and take steps to force disclosure and destruction.

[The article referred to may be found in committee files.]

Mr. WOOLSEY. Mr. Chairman, the United States is continuing to assess the phase 2 data of the 1989 Wyoming memorandum of understanding that have been submitted by Russia. After an initial review of the data, I would say that we have serious concerns over apparent incompleteness, inconsistency, and contradictory aspects of the data. Russia did not declare any binary weapons programs either in development or production.

The Wyoming MOU contains provisions for seeking clarification of data, raising questions about data submitted, and seeking bilateral consultations on data questions. Russia has yet to respond to the U.S. questions that were asked in May about part 1 of these phase 2 data. And the United States has requested consultations with the Russian federation to pursue this matter.

I would like to add a further point, Mr. Chairman. Certainly, as I mentioned in my remarks, having Russian data, even when the data are incomplete or inaccurate, is an assistance to us in the intelligence community, as my testimony indicated. But I want to mention another matter that may be on the committee's mind, just as it is on mine.

Three years ago, in a different administration, in a different capacity with regard to a different treaty, I sat before this committee, following a data dispute with the Soviet Union. I was the Conventional Forces in Europe negotiator, an Ambassador, and this committee held extensive and thorough hearings in 1991 on that treaty, prior to the Senate's ratification.

The ratification debate had been preceded by some 7 or 8 months of intensive discussions between the United States and its friends and allies, and the then-Soviet Union, on the inaccurate and inconsistent data that had been submitted initially upon the treaty's being signed—principally at the behest, we believed then and believe now—of the then-Soviet military.

There were many problems with that data. One problem was of course that the Soviet military had submitted information about weapons systems—tanks, artillery, and the like—as part of their naval infantry forces, and claimed that such military equipment did not count under the treaty, because they had been put into the navy rather than into ground forces, leaving Prime Minister Major of Britain to say on the floor of the House of Commons that he was not going to go along with an arrangement under which the Russian Navy had more tanks than the British Army.

I was intensively involved in the discussions with the Soviet Government and the Soviet military up to the very top for a number of months to resolve these issues. And ultimately, Secretary Baker and Foreign Minister Bessmertnyth, in Lisbon, worked out an arrangement.

The matter was brought fully to the attention of President Gorbachev. The data were corrected to the satisfaction of the United States in a set of understandings negotiated in the summer of 1991. And the treaty was then ratified. It is now in effect. Much good has been accomplished under it, but there are some issues under it that continue to surface from time to time.

My point in recalling this set of experiences is to say to this committee that the provision of data on sensitive programs, whether it is prior to a treaty such as this under the memorandum of understanding, or at the time of the treaty signing, as was the case in CFE, often contains many rocks and shoals that need to be navigated. But we were, in CFE, better off being able to have a dispute about the data and eventually to get it ironed out than would have been the case in the absence of a treaty.

And neither with respect to this phase 2 data under the Wyoming MOU, nor with respect to later data under the treaty, would I tell you, based on my own experience as a negotiator or my experience in this job, that the data are going to be free from problems or free from conflict. Often they provide an opportunity, however, to get such issues ironed out with the very senior leadership of the government concerned.

And I simply thought it might be useful to recall that earlier episode, in which all three Senators here and many of the staff and many of the people in this room are well versed, as a bit of an object lesson with respect to this particular data issue.

The CHAIRMAN. How will the ratification of this treaty have an effect—what effect will it have on the work of the intelligence community? Will it make your work a bit easier, verification easier? What is your view?

Mr. WOOLSEY. The exchange of data and the verification regime under the treaty will definitely make it easier for the intelligence community to obtain information about chemical warfare activities or potential chemical warfare activities in countries that are party to the treaty. And for the reasons I stated in my prepared statement, I believe it will have some deterrent effect on others acquiring chemical weapons.

We will know more about the state of chemical warfare preparations in the world with the treaty than we would know without it.

The CHAIRMAN. I thank you.

Just this question to you, General Shalikashvili—and it is more or less paraphrasing what you said earlier. Is there any question in your mind that the Chemical Weapons Convention is in the national security interest of the United States?

General SHALIKASHVILI. Not at all. I firmly believe that taking today's reality into effect, particularly what we have already unilaterally decided to do, considering what Mr. Woolsey just stated on such a treaty making his job easier—of understanding what the CW world looks like out there—all those things argue that this treaty is in our best interest.

The CHAIRMAN. Are there any of the Joint Chiefs who would not agree with that statement?

General SHALIKASHVILI. All the Joint Chiefs agree with my statement.

The CHAIRMAN. They all agree. The statement is made without reservation?

General SHALIKASHVILI. Without reservations.

The CHAIRMAN. I thank you.

Do you think that the United States will be able to maintain a reasonable or adequate defensive capability in the event that chemical weapons were used against us?

General SHALIKASHVILI. I believe very strongly that we have the best possible capability of dealing with a CW threat, both in terms of having a very robust defensive capability and in having extraordinarily capable and powerful forces to be able to retaliate—but not in kind. We would rely on the use of other forces available to make the point that any attack upon our forces would be dealt with very swiftly and very completely.

The CHAIRMAN. Do you think that the United States would receive adequate notice of any pending violation of the treaty?

General SHALIKASHVILI. I believe that that question really gets at the issue of what is a militarily significant amount of or what kind of a militarily significant program that could go undetected. I think, as you have heard in previous sessions on the subject, the answer to that is very difficult because the military significant cheating, sort of, is an issue that is so very situational-dependent.

Clearly, one scud missile containing roughly half a ton of chemical is militarily significant to those on whom that missile lands. But taking in a broader perspective, when you talk about the violations on a scale that would threaten the security of the United States itself, those kind of violations would have to be massive indeed. And I believe that for that to occur, the United States would have adequate indications in time, but I really must defer to Mr. Woolsey on that issue.

The CHAIRMAN. Is there any supplement that Mr. Woolsey would like to make?

Mr. WOOLSEY. I do not really have anything to add to what I said before, Mr. Chairman.

The CHAIRMAN. Thank you.

How many countries, Mr. Holum, have ratified the Convention so far?

Mr. HOLUM. Thus far, there are 157 countries that have signed the Convention and eight that have ratified it. We believe there are a number of countries that are waiting to see what the United States does. That number will grow very rapidly once we have completed our action.

The CHAIRMAN. I believe the administration recently sent some implementing legislation to us. Why is that legislation necessary? And, in following that thought up, does the administration intend to refrain from ratifying the Convention until Congress has passed the implementing legislation?

Mr. HOLUM. Implementing legislation is necessary for two essential reasons. One is to set up the domestic infrastructure by which our own participation in the Convention will be carried out—the Office of National Authority that will be the interface between the U.S. compliance process and the international body that will implement the Convention.

And the second reason is that the Convention requires all countries to make their domestic law consistent with the Convention, meaning, in essence, or meaning, among other things, that we are required to make violations of the Chemical Weapons Convention violations of our domestic law, our penal law. So, the legislation accomplishes that.

It is not necessary to have the legislation in place prior to ratification of the Convention. In fact, we urge that you not delay ratification of the Convention until the legislation has been completed.

At the same time, it is important to try to get the legislation in place quite soon, because it will take some time for the regulations to be adopted and commented on generally. And the legislation does need to be in effect by the time the Convention actually enters into force.

The CHAIRMAN. Thank you very much.

I would turn now to Senator Lugar.

Senator LUGAR. Thank you very much, Mr. Chairman.

Let me ask General Shali and Director Woolsey this question. Do you believe it is in the best interest of the United States to ratify the CWC even if the Russians should fail to do so?

General SHALIKASHVILI. I believe that it is in our best interest even if the Russians fail to do so. Because it starts us on a way of globalizing that which we essentially have unilaterally already decided to do. So, as much as I hope that the Russians will—and as you well know, they have already started the process in the Duma—were the worse to come to pass and for some reason they would not, I think it is still in our best interest.

One final point on that, Senator Lugar. I believe very strongly that if we do ratify it and ratify it early, it will give an argument to those in Russia who favor its ratification. And if we fail to ratify, it could potentially be used by those, who for some sinister reason oppose its ratification in Russia, to delay its ratification or totally kill it.

So, I think what we do will have an impact on what Russia will do.

Mr. WOOLSEY. Let me say, Senator Lugar, that if the CWC reaches a relative degree of universality, even absent Russia, it would still assist the intelligence community in focusing its collection efforts against those states judged to have inaccurate declarations and so forth.

Russia does possess the largest CW stockpile in the world, and without the CWC and bilateral agreements it would definitely be a cause for concern.

But if Russia for some reason should not become a party to the CWC, there are more limited bilateral mechanisms to try to seek satisfactory resolution to the growing evidence that Russia has continued elements of an offensive program. And I agree with what General Shalikashvili said, that U.S. failure to ratify would probably make it easier for Russia to justify its own nonratification, and would make it easier for Russia to escape being linked with the outlaw states who do not intend to ratify for other reasons.

Senator LUGAR. Let me ask whether the New York Times article, often cited already in the hearing this morning, indicates divisions within Russia over intent or political will with regard to the CWC

or even raises questions about political control that proceed really beyond the Duma or beyond perhaps civil officials in Russia. General Shalikashvili has mentioned specifically that our early ratification of this Convention might be helpful in the Duma debate and perhaps within other circles of Russian Government. But isn't the lack of clear political authority in Russia likely to be continuing dilemma with regard to this treaty?

And I ask this because Russia has by far the largest stocks of chemical munitions. This is an extremely important question with regard to chemical warfare and chemical stocks in the world, and therefore some assessment of what Russian officials are about, and their rapport with us at this time, it seems to me, is extraordinarily important. Would either of you comment about that?

Mr. WOOLSEY. It depends very heavily on the future direction of the Russian state, with respect to the nature of the Duma and the individuals over the years to come who hold the Presidency and their relationship to the Russian military. Our experience in CFE with the Soviet Union, to which I alluded, was that it took a great deal of effort and dealing ultimately with the President of the country himself in order to resolve straight data concerns under the CFE Treaty. We hope that this will not always be necessary on disputes or matters of this kind, but we do have a very open and positive dialog with the Russian Government on a whole range of issues right now.

Premier Chernomyrdin is here meeting with Vice President Gore this week with a number of his colleagues from the Russian Government, with a number of American officials, on a whole range of questions. Should that type of open communication at the top of the Russian Government, including with President Yeltsin, continue, then these are political disputes with a country that has factions and disagreements and the problems can be worked. Should darker days come in Russia, of course, such arrangements could be considerably more difficult.

General SHALIKASHVILI. I do not know, Senator Lugar, whether we do not have that information because of some issues of dispute on the control issue alluded to, or some reasons to try not to declare some sites or activities because they would wish to link it to eventual commercialization of those facilities and find it would be too costly to do under the treaty. I do not know.

But I do know this, that if we have CWC that the declaration requirements, and more importantly the routine and challenge inspection regime, will allow us to come to grips with that much easier, and I believe also will help those in Russia who believe in democratic institution, civilian control of militaries, and so on. So it will not only help us, but it also I think will help the right elements in Russia. And therefore I consider that one more reason the CWC would be beneficial to us.

Senator LUGAR. Finally, and I will conclude at least the Russian part of the questions with this, should we delay ratification until we pin down the Russian binary weapons issue more specifically? This issue has been out there now for a while, and we have the Vice President meeting with Prime Minister Chernomyrdin in this city today. Ours is not an obscure relationship with Russia. Would it not be wise at least to clear the air prior to a Senate debate on

this issue? The Senate will have to pin down this issue which now has taken on a very high public profile.

Mr. WOOLSEY. I think that is outside the realm of intelligence assessment, Senator Lugar.

Senator LUGAR. Well, this is in your general policy stance.

Mr. WOOLSEY. I try to stay about as far away from policy as one can get, Senator Lugar.

General SHALIKASHVILI. I will tell you, if I may, from the standpoint of a military officer that I believe the sooner we have the CWC the better for this country. The sooner we have the CWC, the sooner we can come to the bottom of this issue. And so I would ask you not to delay for that reason, to go full speed ahead trying to resolve that issue but at the same time go full speed ahead to try to get this treaty ratified.

Senator LUGAR. Director Holum?

Mr. HOLUM. Yes, I have a perspective on this that is particularly intense because the Arms Control and Disarmament Agency is the Agency that is responsible for implementing the Wyoming MOU. So we are engaged in the continuous process of supplying our data to them and obtaining and analyzing their data with others in the interagency. And the important thing to keep in mind about the Wyoming MOU is that it is not formal arms control. It is a transparency arrangement by which we can only get whatever they voluntarily supply us.

For an agency like ours it is very important to be able to have an enforcement mechanism to insist upon the full submission of required data, and that is what we will have in the Chemical Weapons Convention. If the United States ratifies it and if an additional number of countries join and it enters into force, the pressure will be on Russia all the more intently to come into compliance and then we will have the ability to check this information through an international body.

Senator LUGAR. Mr. Chairman, I have several questions I want to raise just for the sake of completing the record, but I will do that in the next round.

The CHAIRMAN. Thank you very much indeed. Senator Jeffords.

Senator JEFFORDS. Thank you, Mr. Chairman.

First, general, are you confident that our defense establishment will be able to meet the timeline set by the treaty for the destruction of our chemical stockpile?

General SHALIKASHVILI. Yes, sir. I believe we will be able to. The experts tell me that we will be able to meet that deadline and perhaps by some 12 months earlier than that.

Senator JEFFORDS. What about the Russians? Do you think they are capable of meeting their commitments?

General SHALIKASHVILI. I think that is, of course, a much larger question. I am very gratified by the fact that some 55 million of the Nunn-Lugar money has been made available to assist them with that. I think it will take some more assistance on our part and the part of the international community for them to meet that kind of a date. But I can think of few more worthwhile causes for those resources than to help them come as close to that date as possible.

Senator JEFFORDS. Director Woolsey, of the 157 treaty signatories, can you estimate how many possess chemical weapons inven-

tories that they will be forced to give up, and how many have no current inventory but are considered by the intelligence community as potential proliferators in the absence of an international control regime for these weapons?

Mr. WOOLSEY. Let me supply a more complete answer for the record, Senator Jeffords. We tend to talk of approximately 20 countries around the world working on chemical weapons. But with respect to possible future programs, let me get you the exact numbers, and we will provide them, classified if necessary, otherwise unclassified.

Senator JEFFORDS. Mr. Holum, if the United States were to reject ratification of the Chemical Weapons Convention, what effect would such action have on the prospects for the treaty with other nations?

Mr. HOLUM. I think our decision will be determinative in terms of the Convention entering into force. The provisions of the Convention are that any 65 countries can bring it into force and ratify it. But I think if the United States delays for a long period or fails to ratify the Convention that the likelihood of its ever entering into force will be very, very slim.

Senator JEFFORDS. If we failed to do so, do you think it would have an impact on the various other arms control agreements that we are trying to negotiate and implement?

Mr. HOLUM. Well, chemical weapons in a sense is a specialized area. I do not think it would be decisive necessarily in for example implementation of the strategic arms limitation agreements with Russia or the START agreements. On the other hand, I think it would hamper us in our efforts to extend the nonproliferation treaty, the Nuclear Non-Proliferation Treaty, indefinitely and unconditionally, which is one of our major international objectives.

It would certainly, I would think, set back the efforts that are now underway through experts groups and review conferences to consider ways of making the Biological Weapons Convention verifiable, because if you cannot do this with chemicals then many countries would consider it to be a waste of time to pursue the biological weapons.

So I think it would have a mixed impact, but it certainly would set us back overall in other areas.

Senator JEFFORDS. What is the outcome, Mr. Holum, of the administration's review of the use of riot control agents?

Mr. HOLUM. We are nearing completion of that process, and I hope we can have a specific answer to the Senate in a very few days. But at the moment it is not yet finished.

Senator JEFFORDS. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much.

General, would I not be correct in saying that this is the most intrusive treaty that we have ever signed?

General SHALIKASHVILI. Yes, I believe it is the most intrusive regime of any treaty.

The CHAIRMAN. On both sides.

General SHALIKASHVILI. That is correct, sir.

The CHAIRMAN. And would it be a correct statement to say that the maintenance of our conventional military strength is the key

to a defense against the potential use of chemical weapons against us?

General SHALIKASHVILI. Without a doubt, yes, sir.

The CHAIRMAN. I thank you very much, and I would now turn to Senator LUGAR.

Senator LUGAR. Thank you, Mr. Chairman.

Mr. Woolsey, during the CWC negotiations, did the intelligence community make known its views on monitoring capabilities and difficulties, and were those intelligence views given due consideration?

Mr. WOOLSEY. During those negotiations I was either negotiating the CFE Treaty or in private law practice, Senator Lugar, but Mr. MacEachin who is here with me today, who headed the staff at the CIA for the whole intelligence community that assesses arms control matters for some years, testified before the committee earlier. Based on all the information I have from him, as well as the others who have worked on these issues in the intelligence community in the past, the answer is yes, they fully participated in the deliberations, and made their views known, and understood that rigor of verification was an important value but was not the sole value, as I mentioned in my remarks.

Privacy in the United States, foreign policy concerns, there are counterintelligence concerns—there are a number of issues that needed to be weighed and balanced. Their views were heard and, to the best of my knowledge, the professionals in the intelligence community are quite satisfied with the hearing they got and support the ultimate judgments on verification regimes that were reached.

Senator LUGAR. My reason for asking the question is that in so many other debates on the floor of the Senate dealing with arms control treaties, the verification issue has been an extremely important one. And opponents of those treaties have invariably stressed various verification weaknesses.

Now, in testimony we have had, administration witnesses have been very candid in pointing out that some verification is possible but that some is not; in fact, that there were severe limitations. So my purpose in raising the question on the public record is that the same qualms that you may have had in the intelligence community and expressed to each other were also part of the overall administration consideration of the treaty and the negotiations. In short, the government entered into this treaty with eyes wide open. You understand the deficiencies but have come to a judgment as to the overall value of the treaty to the country.

Mr. WOOLSEY. That is correct. As I testified, I cannot state that we have high confidence in our ability to detect noncompliance with this treaty, especially noncompliance on a small scale. But there are other issues in the balance here, and among them are the enhancement in—just from the intelligence community's perspective—the enhancement that the treaty offers to us in our overall ability to understand what is going on in the outside world with respect to chemical weapons. There is definitely a net plus in that dimension.

Senator LUGAR. General Shalikashvili, I would like to ask this question of you: How did the views of the U.S. military relative to

the utility of a chemical weapons treaty evolve over the course of the last 5 years of negotiations? Specifically, what were the military arguments for and against a total ban, a zero solution, which finally evolved, as opposed to retaining a small residual capability, the so-called 2-percent solution.

General SHALIKASHVILI. I cannot speak to all the arguments made. I did participate as the assistant to the Chairman of the Joint Chiefs of Staff during at least a 1-year period and was one of the principal representatives to the interagency as we were working these issues. Our feeling was always that from a war-fighting perspective, as we were moving to weapons systems, conventional weapons systems that were extraordinarily more precise than anything we had ever seen before, and as we continue to retain our nuclear systems, the retention of CW systems was not necessary from a war-fighting point of view.

From a deterrent point of view, particularly as a result of Desert Storm, we came to the conclusion that we can provide every bit of the deterrence that is necessary through a clear declaration that we would use swift and massive force to deal with anyone who would dare to use CW weapons against us. We believe it worked in Desert Storm; we believe it will work in the future.

The problem we saw with retaining just a few is that it is neither good enough for war fighting, neither good enough to deter, but it stands in the way of reaching a global vehicle that would get us to a global total reduction of these weapons systems, so there was hardly anyone that I am aware of, and certainly not during the year that I articulated the military's position in the interagency, who really argued for that.

Senator LUGAR. Will the declining resources available to the intelligence community over the remainder of the decade in any way constrain the community's ability to monitor the CWC and/or to take on any additional intelligence demands associated with monitoring CWC compliance?

Mr. WOOLSEY. Senator Lugar, I am glad you asked that question. The answer is yes, definitely, the declining resources will hinder our ability to monitor. The intelligence community during the decade of the nineties will reduce in personnel by 22, 23 percent, just about double the reduction for domestic agencies that is planned under the reinventing government initiative. The community will be in size by the end of the decade about where it was at the end of the Carter administration.

President Clinton proposed during the Presidential campaign that the Bush administration's intelligence budgets would be able to be reduced by \$7 billion over the 4-year period 1993-96. The combined slightly deeper cuts proposed by the administration and the substantially deeper cuts taken by the Congress will make that a \$13 to \$14 billion reduction over that same 4-year period.

We are down in numbers of analysts looking at these issues. The prospect is for the resources and personnel to shrink further rather than grow, based on what I am hearing about budget cuts in the Congress. There are R&D efforts to develop technologies to improve CW monitoring, but we may not be able to afford those.

There is competition for the use of national technical means—reconnaissance satellites, essentially—for a large number of pur-

poses. The numbers of those are declining under the pressure of budget cuts. And each new treaty that is ratified by the Senate brings with it an endowment of responsibility for intelligence monitoring. Resources are not added for that purpose, they are instead further reduced.

It is a serious problem.

Senator LUGAR. In the intelligence area, will the new CW organization set up to oversee implementation of the Convention be able or willing to accept U.S. intelligence information as in the manner that the U.N. and the IAEA tend to do presently.

Mr. WOOLSEY. Will it depart?

Senator LUGAR. Will the new organization set up to oversee implementation be able or willing to accept U.S. intelligence information in the manner currently that the U.N. and the IAEA do?

Mr. WOOLSEY. Excuse me just a moment. Let me confer with my experts on that, Senator Lugar.

Senator LUGAR. Perhaps Director Holum?

Mr. HOLUM. The answer to that question is that it will, and we are considering arrangements to provide information and technical capability in the same way that we technically do so with the IAEA. It is also important to note that our own information can serve as the basis for a challenge inspection, a request for a challenge inspection of a specific site. So we could also use it in a way to enhance our verification.

Mr. WOOLSEY. If I could, Senator Lugar, I would suggest that I take that question for the record or, if we need to get into other aspects of that in executive session, we can do so.

Senator LUGAR. Very well. I just wanted to establish that at least in common sense there were parallel situations here.

I have more questions, but I will wait for the next round.

The CHAIRMAN. I thank you. Senator Jeffords.

Senator JEFFORDS. Yes, just one, Mr. Chairman.

General, you mentioned that rather than a 2-percent solution, the use of retaliatory force of a rather large nature would be sufficient to deter. I would presume that a corollary to that would be that the need to have that retaliatory force available would be greatly reduced by getting a large number of nations to sign the treaty.

General SHALIKASHVILI. I am not sure I understand you.

Senator JEFFORDS. In other words, if you have to be ready in case the opposition has chemical weapons, that means we have to design forces to provide that response, and I suppose an advantage of us signing and getting others to sign is use of that kind of force would be less necessary.

General SHALIKASHVILI. Absolutely, Senator Jeffords. I believe that the force we have today and the force that we have postulated in the President's program is the force that is more than capable of providing the deterrent. Over time as this treaty becomes globalized, the need to deter other parties from the use of CW will diminish as they relinquish those systems. So I am very hopeful that what you say will come to pass.

Senator JEFFORDS. Thank you, Mr. Chairman. If I could use just a minute to make a little statement.

I want to commend you and the committee staff for arranging an excellent set of hearings on the Chemical Weapons Convention. They have given this committee, and the interested public, an opportunity to review in great detail the substance of the treaty and the issues that surround it.

One of those issues has been verification—which has arisen in open hearings and was the focus as well of a classified session of the committee. It is no secret that verifying this treaty presents unique challenges to the intelligence community * * * that it is no small task * * * and that there is no such thing in this, or any other arms control agreement, as perfect verification in the sense of being able to detect each and every violation, no matter how small.

However, we should keep in mind several truths which set the context for this issue, some of which have been touched on by our witnesses today. First, the CWC provides the most intrusive inspection regime in the history of arms control. While it may not provide for perfect verification, it will considerably enhance our current ability to monitor signatory states in order to detect any attempts at chemical weapons development or stockpiling.

Second, with or without this treaty, the United States is already obligated to destroy the great bulk of our chemical munitions pursuant to domestic legislation and a bilateral agreement with Russia. Therefore, the verification enhancements I mentioned, even if imperfect, are nearly cost-free in terms of any reciprocal forfeit of actual U.S. military capability. To use the vernacular, this Treaty is "all gravy" where verification is concerned. That is very different from the situation under the SALT, START, and INF agreements on nuclear arms, which do involve substantial net limits or reductions in U.S. capabilities.

Third, the U.S. long since concluded that chemical weapons were of little value to us as offensive weapons. Neither do we need them as a tit-for-tat deterrent. As the most technologically advanced military power on Earth, we have more than adequate alternatives for deterrence or retaliation, and chemical defensive measures are available to blunt or nullify the impact of a chemical attack on our forces. Chemical weapons, to be blunt, are a poor man's weapon, not a rich man's. We are giving up very little in this treaty, and need not require a perfect standard of verification in order to come out way ahead in getting the rest of the world to do what we and Russia are already doing.

Last, verification is not cost free and perfect verification, even if were possible, would entail burdens and costs to governments and to the chemical industry which we ourselves would be unlikely to accept. This treaty seeks to balance verification requirements and costs and I believe it does so in a reasonable manner.

As I noted at the outset, Mr. Chairman, I believe this committee has acted with care and thoroughness in reviewing this treaty, which was submitted by the administration in November and has been the subject of extensive hearings since March. That was our charge and our responsibility. It is also our responsibility to make decisions, and I believe that the time is fast approaching for the committee to render judgment on the treaty in order that the mat-

ter may proceed to the full Senate in time to ensure a ratification vote this session.

The matter cannot be allowed to drift into next year. One hundred and fifty-seven states have signed the treaty but 65 must ratify before it can come into force. Eight nations have already taken that step, others will follow, but many others are waiting to see if the U.S.—which provided key leadership in negotiating this treaty—will embrace its own creation. The world does not stand still, nor does the continuing threat of chemical weapons proliferation. For most nations, there are few, if any, time-consuming barriers in terms of technical or economic obstacles to acquiring a chemical weapons capability. All it takes is a political decision today, tomorrow, or the next day. This treaty took 10 years to negotiate—or a quarter century depending on where you place the starting point—and it comes none too soon. It is important to generate and sustain global momentum towards its ratification by those who signed it, and for that, leadership by the United States is crucial. Accordingly, I would hope, Mr. Chairman, that this treaty can be scheduled for a vote by this committee in the very near future.

The CHAIRMAN. Thank you very much indeed for your words and thoughts, and I would add that my intent is that we schedule it after the Fourth of July recess but before the summer break. We will do our best.

Senator JEFFORDS. Thank you.

The CHAIRMAN. Senator Lugar.

Senator LUGAR. Mr. Chairman, thank you.

I would like to ask, Director Woolsey, what issues relating to the CWC verification regime were left to be decided by the Preparatory Commission before the CWC comes into force and why? Is the intelligence community in our country comfortable with leaving such decisions to the Preparatory Commission, and if we should become uncomfortable with those decisions, what recourse does the United States have prior to entry into force of the CWC.

Mr. WOOLSEY. Senator, if it is possible I would like to take this one for the record. This is an involved answer and I want to get it right.

The CHAIRMAN. I would add here that the record will stay open for a week for any of my colleagues, including Senator Helms, the ranking member, who will have some questions to ask.

Mr. WOOLSEY. Thank you.

Senator LUGAR. Let me ask General Shalikashvili: What is the state of U.S. readiness to implement onsite inspections in Russia pursuant to the United States-Russian bilateral destruction agreement [BDA] and at U.S. facilities here and abroad? For that matter, is the administration prepared to submit the bilateral destruction agreement to the Senate for its advice and consent?

General SHALIKASHVILI. As far as the preparatory work, particularly as it pertains to the military, we have been working with the On-Site Inspection Agency. We have conducted mock inspections on all of our sites. The teams are prepared to proceed with the inspections, and so are the personnel at the sites. So from our military perspective we are ready for it.

As far as the other part of your question, maybe I would defer.

Senator LUGAR. Director Holum, do you have a comment?

Mr. HOLUM. Yes. The Russian side has not yet agreed to implement the BDA, the bilateral destruction agreement. The concern is one I think General Shalikashvili mentioned before. It is their interest in converting to civilian use some of the chemical weapons production sites that, nonetheless, would be included in their declarations under the BDA and CWC. We have insisted that such conversion must be done consistently with the terms of the Chemical Weapons Convention, and there is an impasse and so we need to have some further discussions before the BDA can be implemented.

The BDA was agreed before the Chemical Weapons Convention was conducted. However, all the BDA implementing protocols have not yet been agreed. We do not think that the Chemical Weapons Convention should be dependent on the bilateral destruction agreement. But we still think the bilateral destruction agreement is important.

Senator LUGAR. From earlier testimony I gathered the answers to be affirmative to these questions, but let me raise them just to make certain. To what extent do you think the CWC will deter states from developing CW programs or cause some states to terminate their programs? I think each of you in a way has indicated that you believe that the CWC will serve as a deterrent to developing programs and maybe even force some terminations. Is that your general view?

General SHALIKASHVILI. That is correct.

Mr. WOOLSEY. I agree. Circumstances will differ, of course, from country to country, but I think there will be some such effect.

Mr. HOLUM. Yes.

Senator LUGAR. Let me ask, then, what do you believe that states such as North Korea, Iraq, Libya—states that have not signed the CWC—will do? Will they eventually sign, and if they do so, what is your judgment on their likely compliance with provisions of the Convention?

Mr. WOOLSEY. Well, most of the Arab states link their signature of the CWC to a demand that Israel sign the nonproliferation treaty. Egypt is perhaps the most vocal on this point. And although most of the Arab states may well eventually sign as the years go on, I certainly could not predict that North Korea would sign in any foreseeable future.

If you use the Biological Weapons Convention as an indicator of intentions, Egypt, Iraq, and Syria have all signed it but they have not yet ratified it. In order really to bring it into effect one needs the states to take both steps, and some states will sign and then delay ratification for a long, long time.

Senator LUGAR. Mr. Chairman, I would like to ask General Shalikashvili a question which is not related to the CWC Treaty but his presence here gives us an opportunity to seek reassurances in another area.

Clearly, events in the Korean picture indicate that the United States for the time being will not pursue sanctions at the U.N. But, General Shalikashvili, it has been pointed out that you and other members of the Joint Chiefs have in fact been making recommendations to the President of the United States for augment-

ing and improving the coordination of the American and South Korean forces during these troubled times.

Are you able to offer some reassurance that, quite apart from whether the sanctions effort has been abandoned, that we are in fact still proceeding to strengthen our position on the ground in Korea and that our deterrent capability has been made even more solid?

General SHALIKASHVILI. Without a doubt, we are involved now in the very careful reevaluation of the recommendations that we had carried forward to see which applies and which at the moment should be held in abeyance until we see how the third round talks proceed that, as you well know, have been agreed to now by the North Koreans.

I am in nearly daily contact with General Luck on this very matter to ensure that we go and provide the Secretary of Defense and the President at all times the best advice as to what needs to be done that our forces are always ready.

Senator LUGAR. And you are giving support to General Luck in terms of all the requests that he has made on the basis of his reading of the indicators?

General SHALIKASHVILI. Absolutely. Yes, sir.

Senator LUGAR. Thank you very much.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you very much indeed.

I think this has been a good hearing. I thank the panel for their testimony, and I understand in conclusion that each of you believes the Convention is in the national security interest of the United States and that we should proceed as quickly as possible to ratification.

General SHALIKASHVILI. I do.

Mr. WOOLSEY. Yes.

Mr. HOLUM. Yes, Senator.

The CHAIRMAN. I see the General nods his head, Mr. Woolsey nods his head, and Mr. Holum also says yes.

So we thank you very much indeed for coming up and being with us, and the hearing is adjourned.

[Whereupon, at 11:19 a.m., the committee adjourned, to reconvene subject to the call of the Chair.]

APPENDIX

APRIL 13, 1994

RESPONSES OF MR. LEDOGAR TO QUESTIONS ASKED BY SENATOR HELMS*

Question 1. Does the CWC Treaty contain provisions for the verification of the production of chemical or biological weapons that have *not* been declared by the signatory state?

Answer. Article IX (Consultations, Cooperation and Fact-Finding) and Part X of the Verification Annex (Challenge Inspections Pursuant to Article IX) contain procedures for a State Party to raise and resolve any concerns it may have regarding another State Party's compliance with the CWC, including declarations. Article IX requires States Parties to consult and cooperate, either among themselves, through the CWC Organization or other appropriate international procedures, including within the framework of the UN, on any matter that might be raised with regard to CWC implementation. The Article further provides specific procedures for such cooperative action, including time deadlines for resolution of the concern and follow-up procedures in the event of non-resolution of the concern. Also included among the various procedures available to a State Party under Article IX are mechanisms for a concerned State Party to initiate a challenge inspection or to convene a special conference of States Parties to address the matter in question.

Question 2. What mechanisms are in place to insure that chemicals produced for commercial production are not diverted for military use?

Answer. The CWC obligates States Parties to declare specified chemical industry activities relevant to the production and use of chemical weapons and to subject certain commercial facilities to routine inspections. Specific provisions contained in Article VI (Activities Not Prohibited Under This Convention) and Parts VI-IX of the Verification Annex contain procedures for initial and annual declarations, initial inspections to verify declarations and follow-on inspections to verify, *inter alia*, that the quantities of chemicals produced, processed or consumed are correctly declared and consistent with needs for the declared purpose and that the chemicals are not diverted or used for other purposes.

Declarations require inclusion of facility-specific information such as the name of the chemical; the amount produced, imported or exported; the purpose for which it was produced, including whether for export with specification of the States involved. These declarations are required for the past year's activities, as well as those planned for the coming year.

Under the CWC, an inspected facility is required to provide inspectors with access to specified facility areas such as areas where feed chemicals are stored, lines to and from reaction vessels, control equipment, and areas for waste and effluent handling. Additionally, an inspected facility is required to allow inspector access to appropriate records.

It should be noted, however, that the CWC does not intend, nor pretend, to be able to provide an exact material accountancy of every relevant chemical. This would be not only impossible, but an unbearable burden on industry. Instead, the verification regime is designed to deter potential violators by making it more difficult to cheat without possible detection. The Administration believes that this routine verification regime, coupled with a challenge inspection regime for both declared and undeclared facilities or locations, meets the U.S. goal for an effectively verifiable CWC which balances the need for necessary intrusion against the need for protection of U.S. proprietary and sensitive, non-CWC relevant information.

Question 4. How will verification of production of binary agents be conducted, especially if a country secretly conceals one of the non-lethal compounds from inspectors?

* Answers to questions 3 and 11 are contained in a separate classified document.

Answer. CWC negotiators debated whether to attempt to define specifically what chemical activities were to be prohibited, or to prohibit all activities except those specifically not prohibited. The latter approach was chosen to facilitate verification and to preclude loopholes with regard to unknown or future chemicals of possible concern. Thus, "chemical weapons" applies to "toxic chemicals and their precursors, except where intended for purposes not prohibited under the Convention, as long as the types and quantities are consistent with such purposes." A toxic chemical is defined as "any chemical which through its chemical action on life processes can cause death, temporary incapacitation or permanent harm to humans or animals. This includes all such chemicals, regardless of their origin or their method of production and whether they are produced in facilities, in munitions or elsewhere."

—Non-prohibited purposes are:

"(a) industrial, agricultural, research, medical, pharmaceutical or other peaceful purposes;

"(b) protective purposes, namely those purposes directly related to protection against toxic chemicals and to protection against chemical weapons;

"(c) military purposes not connected with the use of chemical weapons and not dependent on the use of the toxic properties of chemicals as a method of warfare; and

"(d) law enforcement including domestic riot control purposes."

A State Party is required to declare all chemical weapons it owns or possesses and whether there are any chemical weapons located in any place under its jurisdiction or control. It must also provide inspectors access to such weapons for initial inspection to verify the declarations, routine inspections of storage until destruction, and monitoring of actual destruction.

With regard to the concern of clandestine production of binary agents in commercial facilities, the answers to questions 2 and 3 address the CWC mechanisms in place to deter, detect or address such activity. Additionally, the definition of chemical weapons, in particular the allowance for use of toxic chemicals for non-prohibited purposes, "as long as the types and quantities are consistent with such purposes," is intended to provide the basis for inspectors to question findings of chemicals which seem to be inconsistent with their use for non-prohibited purposes. In other words, States Parties must be able to justify the types and quantities of such chemicals or face suspicion and potential follow-on-action from the CWC Organization. The CWC contains provisions for States Parties to address compliance concerns such as the accuracy of declarations. Additionally, if a State Party believes a chemical should be declared and subject to monitoring under the CWC, procedures exist (under Article XV) for the chemical to be added to one of the schedules of chemicals contained in the Annex on Chemicals. This Annex also provides criteria for States Parties to take into account in future placement or rearrangement of chemicals on the schedules.

Question 5. How will verification be conducted in countries that secretly store bulk chemicals in underground tanks, or in easy-to-move trailer-truck tanks?

Answer. A State Party is required to declare all chemical weapons it owns or possesses or that are located in any place under its jurisdiction or control. It must also declare the storage locations and provide inspectors access to such weapons for initial inspection to verify the declarations, routine inspections of storage until destruction, and monitoring of actual destruction. If a State Party is concerned that another State Party is clandestinely stockpiling chemical weapons, it may request a challenge inspection of any location or facility, including suspected underground tanks or trailer-truck tanks.

With regard to challenge inspection, it must be pointed out that the U.S. requirement for such a regime was that it balance effectively the need for international intrusiveness and measures to address compliance concerns against the need to protect sensitive non-CW information, as well as Constitutional privacy rights and proprietary information. Thus, CWC challenge inspection provisions enable us to control access to sensitive or private facilities in a manner which protects our interests. Under challenge inspection, the inspected State Party has the right to negotiate the extent and nature of access within the site as well as the activities of the inspection team and the inspected State Party's activities and provision of information. For challenge inspections, the CWC also gives States Parties the right to take measures to protect sensitive installations and prevent disclosure of sensitive information not related to chemical weapons. However, if an inspected State Party restricts access, it is obligated to make every reasonable effort to provide alternative means to satisfy the compliance concern that instigated the inspection.

Non-cooperation of an inspected State Party in this regard will be taken into account in our compliance judgments. The inspection team report will contain not only the factual findings of the inspection but also an assessment of the degree and na-

ture of access and cooperation granted. Our judgment about the compliance of the inspected State Party will rest upon an accumulation of information, e.g., that provided by the challenging State Party, the nature of cooperation of the inspected State Party, information from the inspection and alternative means offered, and our own national intelligence means.

Question 6. What type of technical means of verification procedures does the CWC treaty provide for detecting the production or storage of non-classical agents? Will new agents be added to the prohibited list as they are developed?

Answer. For the first question, see answers to questions 2 and 4. Also, the CWC will supplement U.S. monitoring and detection of clandestine activities by providing U.S. access to States Parties declarations of CW production facilities and storage sites and certain information from declarations on relevant chemical industry facilities and activities. The U.S. will also have access to general information from routine inspections and will receive copies of all final inspection reports on challenge inspections of declared and undeclared facilities and locations. Information inconsistent with our intelligence can flag or help substantiate questionable activities. We can then pursue our questions or concerns through CWC mechanisms such as consultative procedures and challenge inspections under Article IX.

With regard to the second question, the CWC recognizes the need to cover unknown or future chemicals of concern (as noted in answer to question 4) as well as to provide for such chemicals to be monitored under the Convention. If a State Party believes a chemical should be declared and subject to monitoring under the CWC, procedures exist (under Article XV) for it to propose adding the chemical to one of the schedules of chemicals contained in the Annex on Chemicals. This Annex contains three categories of treaty controlled chemicals (designated Schedules 1, 2 and 3 in decreasing order of perceived risk) based, *inter alia*, on the toxicity of the chemicals, their historical use as chemical weapons or potential role in the production of chemical weapons, and their commercial use. The Annex on Chemicals also provides criteria for States Parties to take into account in considering future placement or rearrangement of chemicals on the schedules.

Question 7. How will U.S. expenditures of CWC verification be weighed against other pressing needs in the arms control arena, such as: destruction of chemical weapons stockpiles in the United States and former Soviet Union; dismantlement and destruction of nuclear warheads; verification of a Comprehensive Test Ban Treaty; implementation of the Conventional Forces in Europe Treaty; implementation and expansion of Open Skies arrangements; a cutoff of production of special nuclear materials production; Improvement of International Atomic Agency safeguards; and, potential expansion of arms control such as globalization of the Intermediate Nuclear Forces Treaty?

Answer. Verification is a critical and integral aspect of arms control agreements, serving to build confidence that the obligations are carried out in a manner consistent with treaty requirements and to address concerns about compliance. In the development of verification provisions in arms control agreements, the U.S. balances the need for effective verification provisions with the need to keep costs at the minimum necessary consistent with effective verification. The activities referenced, e.g., destruction of CW stockpiles, require verification to build confidence that they are being carried out in accordance with the terms of the applicable treaty. Thus, expenditures for CWC verification will be weighed equally with the other activities cited.

Question 8. What will be the cost of the implementation of the CWC Treaty to the United States?

Answer. The assessed costs of the CWC Organization will be based upon the United Nations formula of cost assessment adjusted to take into account differences in membership. This formula is specified in the CWC and applies to all signatories' contributions to the Preparatory Commission and States Parties' assessments under the CWC. The U.S. assessed contribution to the overall cost will be approximately 25 percent.

Additionally, a State Party with CW and CW production facilities (CWPF) is expected to pay not only for their destruction, but also for verification activities associated with the monitoring and destruction of these CW and CWPF.

Costs for CY 1995 are still in some degree of flux. The PrepCom is just beginning consideration of the CY 1995 budget. Therefore, the CWC assessment portion of the projected CWC costs is still under consideration. The following is a presentation of the projected FY 1995 U.S. costs in support of the CWC. Also presented are CW-related costs which occur irrespective of whether the U.S. is a Party to the Chemical Weapons Convention.

CW Costs (in \$ Millions)

	FY 93	FY 94	FY 95
CWC-Related Costs:			
ACDA:			
PrepCom/OPCW Assessment	2.20	9.40	14.00
Admin/PrepCom Support	2.24	0.98	1.00
Industry Outreach	0.20	0.20	0.30
ONA Requirements		0.25	9.96
Totals	4.64	10.83	25.26
DOD:			
OSIA	11.09	17.74	25.36
Services	17.45	26.00	39.29
DNA (Verification Technology RDT&E)	21.65	18.96	17.60
Totals	50.19	62.70	82.25
DOC	0	0	5.00
Industry			6.00

In addition, there are other chemical weapons related costs for defense and demilitarization which are required irrespective of whether the U.S. is a Party to the CWC:

Non-CWC Dependent Costs:**DOD:**

Chemical Stockpile Disposal Program	533.60	503.80	851.30
CW Stockpile Maintenance	93.80	98.40	99.40
Chemical/Biological Defense Program	576.20	584.16	508.60

Question 9. What are the possible constitutional implications of the verification rights given to parties under the CWC such as the right of access and review of chemical weapons facilities in the U.S.?

Answer. There are two basic types of inspections under the Chemical Weapons Convention (CWC)—“routine” and “challenge”. Routine inspections will be conducted at facilities related to chemical weapons (i.e., chemical weapons storage, destruction and production facilities) and at chemical industry facilities that produce (and in some cases process or consume) chemicals listed in Schedules in the Convention (“Scheduled chemicals”) above specified thresholds. Starting at the beginning of the fourth year after the CWC enters into force, routine inspections will also be conducted at facilities that produce chemicals that can be used to produce Scheduled chemicals (“other chemical production facilities”), unless the CWC Conference of the States Parties votes otherwise. Challenge inspections can be conducted at any facility or location in the United States or in any place under its jurisdiction or control.

Inspections of all government facilities and government contractor facilities (if such a right has been added as a condition of their contracts) can be conducted without search warrants. For the United States, these include all chemical weapons storage, destruction and development facilities, and all but two former chemical weapons production facilities (the latter are privately owned commercial chemical facilities).

All inspections of private facilities will be initiated on the basis of consent. However, in the presumably rare case in which consent is denied, most inspections would then be conducted using search warrants obtained on the basis of administrative probable cause, i.e., the Government demonstrates that the facility fits within a reasonable legislatively mandated inspection scheme. This mirrors the procedures used in similar inspections pursuant to domestic legislation, e.g., inspections of health code violations or toxic substance emissions. Some inspections of facilities that produce Schedule 1 chemicals (those of greatest risk to the object and purpose of the CWC) may, however, be conducted without warrants. If so, these inspections will comply with the conditions of the Supreme Court exception to the warrant requirement for inspections of “pervasively regulated industries.”

Given the CWC obligation to “allow the greatest degree of access” for challenge inspections, the U.S. expects to conduct challenge inspections of other private facilities.

ties pursuant to administrative search warrants. Recognizing, however, that it might be necessary to use search warrants based on criminal probable cause, the U.S. negotiated the addition of a corollary right to "tak[e] into account any constitutional obligations it may have with regard to * * * searches and seizures" in relation to CWC challenge inspections. Accordingly, the U.S. would not be in violation of the CWC if access had to be limited or severely restricted because it proved impossible to obtain access in a constitutionally permissible manner. This specific right to take into account constitutional obligations regarding searches and seizures also applies to routine inspections of "other chemical production facilities," since the rules for routine inspections of these facilities incorporate this right by reference.

Question 10. Has Russia destroyed the chemical weapons that it originally agreed to destroy by the end of 1992? Does Russia have the technical ability to destroy these weapons?

Answer. The June 1990 Agreement on the Destruction and Non-Production of Chemical Weapons and Measures to Facilitate the Multilateral Chemical Weapons Convention between the U.S. and the Soviet Union, now the Russian Federation requires both to reduce their respective stockpiles to 5,000 agent tons. At the time the Bilateral Destruction Agreement (BDA) was signed, it was assumed the Chemical Weapons Convention was years away. The original intent of the BDA was to achieve Russian commitment to chemical weapons destruction as early as possible and to facilitate progress on the CWC. Russia has continued to have difficulty with its destruction program and has not yet approved previously agreed changes to the BDA. The BDA specifies that certain CWC requirements for destruction, e.g. 100 percent destruction of chemical weapons in ten years (with a possible 5 year extension) after CWC entry into force, would supersede the more limited requirements of the BDA. The U.S. continues to work actively with Russia to resolve remaining BDA issues.

Russia was an original signatory of the CWC. The U.S. expects Russia will ratify the CWC, which was submitted to the Duma on March 24. The U.S. is providing financial and technical assistance to Russia for CW destruction. An agreed Plan of Work was signed on January 10, 1994. Further U.S. assistance will be necessary to help Russia destroy its chemical weapons and production facilities within the time-frames established by the CWC. The Administration is now considering the nature and extent of further assistance, in addition to that already provided under Nunn-Lugar, and will consult with the Congress before reaching a decision.

U.S.-RUSSIAN BILATERAL AGREEMENTS

Question 12. In addition to the Chemical Weapons Convention, the United States has entered into bilateral agreements with the Russian Federation concerning the production, destruction and proliferation of chemical weapons.

a. Please explain the precise relationship between the CWC and the U.S.-Russian bilateral CW agreements.

b. Why does the United States believe that both the CWC and bilateral agreements are necessary?

c. Will the National Authority based in the Arms Control and Disarmament Agency oversee the implementation of the bilateral agreements also?

d. Will the bilateral agreements with Russia be submitted to the Senate for consideration?

e. When might this occur?

f. What are the remaining obstacles?

Answer. As a means of assisting the development of the multilateral CWC, and later as a complement to it, the United States and the former Soviet Union, and later the Russian Federation, negotiated a separate bilateral agreement providing for destruction and mutual verification of their chemical weapons stockpiles.

At the June 1, 1990 Washington Summit, Presidents Bush and Gorbachev signed the Agreement Between the United States of America and the Union of Soviet Socialist Republics on Destruction and Non-Production of Chemical Weapons and on Measures to Facilitate the Multilateral Convention, known as the Bilateral Destruction Agreement (BDA). The key provisions of this agreement are: cessation of chemical weapons production; destruction of the vast bulk of declared stocks (all but 5000 agent tons); on-site inspections of storage, production and destruction facilities; and development and use of safe and environmentally sound methods of destruction. With ratification of the CWC, both sides will be required to destroy all CW stocks within ten years after entry into force of the CWC. In March 1993, U.S. and Russian delegations agreed ad ref on detailed implementing procedures and updated provisions for the BDA, including allowing conversion of CW production facilities (CWPF) consistent with CWC provisions. Since that time, the Russian Federation has indicated that they cannot accept some of these provisions and has proposed significant

changes, primarily to the portions of the documents concerning conversion of former CWPF. Discussions are continuing in an effort to resolve remaining differences.

The CWC requires that States Parties that possess chemical weapons and CW production facilities pay all of the costs of their destruction as well as the costs of verification of such destruction by the CWC Organization. In anticipation of the BDA, the CWC allows for bilateral agreements between States Parties on destruction and verification as long as they are consistent with the CWC provisions. Once the BDA enters into force and the CWC Organization approves the BDA verification provisions, the United States and the Russian Federation would inspect each other's destruction efforts, with general oversight by the international inspectorate. This would reduce costs for the United States and the Russian Federation somewhat, as well as reduce the expenses of the CWC Organization.

While important in its own right, the BDA is less relevant than it was three years ago. At the time it was signed, it was assumed that the CWC was years away. Its original intent was to achieve Russian commitment to chemical weapons destruction as early as possible and to facilitate progress on the CWC. In addition to citing problems with the provisions on conversion of chemical weapons production facilities to peaceful uses, Russia is continuing to have difficulty with its destruction program, citing financial and environmental problems. We have offered financial and technical assistance for Russian CW destruction. An agreed 1994 Plan of Work was signed on January 10, 1994. We continue to work actively with the Russians to resolve the remaining BDA issues.

The Administration decided to submit the Chemical Weapons Convention to the Senate without the bilateral agreement for a number of reasons. First, we believe it is important to keep moving the CWC forward. Our submission of the CWC last November to the Senate for its advice and consent to ratification enabled us to maintain momentum toward early entry into force of the CWC in 1995. Second, the U.S. is greatly concerned about acquisition and potential use of chemical weapons by countries other than the Russian Federation and we wanted to spur their commitment as well. Finally, our submission underscored our commitment to stemming the proliferation of weapons of mass destruction.

Plans for implementation of the bilateral agreement will be coordinated by the CW interagency backstopping group chaired by ACDA. The National Authority will oversee the implementation of the CWC; the executive office of the National Authority (ONA), will be located in ACDA.

No final decisions have been made concerning submission of the BDA to the Senate.

We hope to complete the BDA and decide the submission question soon.

The primary obstacle concerns procedures for conversion of former Russian chemical weapons production facilities to peaceful purposes.

CWC FUNDING

Question 13. The Organization for the Prohibition of Chemical Weapons (OPCW) will be funded through signatories' contributions. The formula for assessments is tied to the United Nations assessment procedure. Under this arrangement, the United States will contribute approximately 25 percent of the OPCW's operating budget. In addition, there will be the costs of domestic implementation measures.

- a. How will the U.S. contribution to the OPCW be budgeted?
- b. What percentage of the total contribution will the U.S. pay?
- c. Is any serious consideration being given to renegotiating the U.S. share?

Answer. ACDA will budget for the U.S. contribution to the OPCW for 1995. It has not yet been decided whether ACDA or STATE will budget for the U.S. contribution thereafter.

Article VIII of the CWC specifies that the costs of the OPCW's activities are to be paid by States Parties in accordance with the United Nation's scale of assessment adjusted to take into account differences in membership between the UN and the OPCW. The U.S. UN assessment is 25 percent.

There are no plans to renegotiate the U.S. share. Given the importance the U.S. attaches to the CWC and the importance of the U.S. to its effective implementation, the Administration believes this cost is well justified. Additionally, any attempt to change the cost formula would require a formal amendment to the Convention, a difficult process and one which could easily result in a less desirable cost formula or other sections of the treaty being the target of proposals for undesirable changes.

CWC COSTS

Question 14. At Administration request, the United States and other nations have spent heavily during the current fiscal year on the Preparatory Commission in The

Hague for the Chemical Weapons Convention. A total of about \$8 million was appropriated for fiscal year 1994 to pay the U.S. share. For fiscal year 1995, ACDA is seeking \$14 million as the U.S. share.

Why was it decided to engage in such spending before the Senate had an opportunity to decide whether it favored ratification of the treaty?

Answer. The CWC provides for the establishment of the CWC Preparatory Commission to prepare for implementation, and calls for signatories to make financial contributions to support the Commission's work, using the adjusted UN formula for assessment. When the CWC was opened for signature in Paris in January 1993, the signing countries established the Preparatory Commission. The Bush Administration endorsed this approach when it approved and signed the Convention, recognizing the necessity for such work to bring the CWC into force. Senate and House Arms Control Observers Groups have overseen the development of the CWC provisions through visits to the negotiations in Geneva, consultations in Washington, and ACDA progress reports, and have overseen the work of the Preparatory Commission in The Hague.

RUSSIAN CW DESTRUCTION PROGRAM

Question 15. The Russian Federation has the world's largest stockpile of chemical weapons, and is consequently presented with the most challenging destruction program. At the same time, it is encountering significant difficulties in its ongoing political and economic transformation.

a. What is the current status of Russia's efforts to develop a CW destruction program?

b. What agencies (and individuals) are assuming responsibilities for the CW destruction program?

c. Given the political and economic turmoil in Russia, is there sufficient administrative stability to get a CW destruction program functioning to meet the CWC's interim destruction timetable?

d. Is it realistic to assume that Russia will be able to meet the CWC's overall 10 year destruction deadline?

e. What assistance, financial and otherwise, has the United States provided to Russia to facilitate destruction of its chemical weapons?

f. Is it realistic to assume that, given its economic difficulties, Russia will request additional funds from the United States to keep its destruction program on pace?

Answer. On 10 January 1994, a Joint Plan of Work was signed with Russia to provide for continued DOD assistance through Nunn-Lugar to Russia for destruction assistance. The signing of the plan triggered the release of a Request for Proposal to select a highly qualified U.S. contractor to assist the Russian Federation in preparing a comprehensive CW destruction implementation plan. Bechtel was recently selected to work with the Russians on this plan.

Additionally, a protocol amending the 1992 implementing agreement was signed in March 1994 providing for U.S. assistance in equipping a centrally located CW destruction analytical laboratory in Russia. The laboratory will be used to develop analytical methods and quality control measures, conduct environmental baseline studies and train scientists and technicians. The laboratory will serve as a visible display of the Russian Federation's commitment to environmentally sound CW destruction.

The Russian Presidential Committee on Convention-Related Issues of Chemical and Biological Weapons has submitted a conceptual destruction plan to the Duma, which has begun parliamentary hearings on Russian ratification of the CWC. The Russians have built one prototype CW destruction facility, the operation of which is pending resolution of environmental and safety concerns related to the proposed destruction program. The Russians have been paying salaries and associated costs of planning for CW destruction. The U.S. is pressing Russia for greater evidence of the commitment of Russian resources to CW destruction.

To our knowledge, Acting Chairman A.S. Ivanov, of the Presidential Committee on Convention-Related Issues of Chemical and Biological Weapons is responsible for the Russian CW destruction program.

We believe that despite the political and economic situation in Russia, there is sufficient administrative ability to get a CW destruction program functioning to meet the CWC's destruction deadline, given U.S. financial and technical assistance. The recent dismissal of Anatoliy Kuntsevich, chairman of the Presidential Committee on Convention-Related Issues of Chemical and Biological Weapons will likely result in delays while leadership roles are redefined. However, we are committed to working with the Russian Federation and not individuals; we have established well-defined paths for communication and for executing key agreements with the Russians, and we expect our discussions on destruction to continue.

Russia will have difficulties meeting the ten year destruction deadline. During the final months of chemical weapons negotiations in the Conference on Disarmament, the Russians made clear that this might be the case. Thus, negotiators included provisions in the Convention allowing a State Party to request and have approved an extension of the destruction period of up to an additional five years, subject to certain conditions. The CWC also allows the ability for a State Party to request and have approved modification of intermediate destruction deadlines within the ten year period. The U.S. has initiated programs of cooperation to assist the Russian Federation in the destruction of its chemical weapons inventory within the timeframes provided for in the Convention. We believe, at this time, that it is possible for them to do so.

Up to \$55 million in DOD funds has been identified under Nunn-Lugar to develop a comprehensive CW destruction plan, provide training to Russian technicians and project managers, and equip an analytical laboratory to process environmental samples, provide training, and perform other essential CW destruction functions. The Russians have requested the U.S. to provide one or two destruction facilities for destruction of nerve agents and the U.S. is considering this request. Building a nerve agent destruction facility would help the Russians destroy their weaponized nerve agents, which are the CW items of greatest concern to U.S. military planners. Some amount of U.S. assistance will be necessary to help Russia destroy its CW and CWPf within the timeframes of the CWC. Providing this assistance is very much in the national security interest of the U.S. The Administration is now considering the nature and extent of further assistance, in addition to that already provided under Nunn-Lugar, and will consult with the Congress before reaching a decision.

KUNTSEVICH DISMISSAL

Question 16. Anatoli Kuntsevich, Chief of the Russian Commission on the Destruction of Chemical Weapons was dismissed by President Yeltsin for "unprofessional conduct." News reports cited a Yeltsin spokesman as indicating that Mr. Kuntsevich may have been fired for creating a serious threat to a major city.

a. Can you shed any light on what this incident is about?

b. Do you see Kuntsevich's removal as likely to affect Russia's efforts to comply with the Convention?

Answer. The Russian press has offered a variety of explanations for Kuntsevich's removal, such as a "single gross violation of work duties," and "inability to get government and parliament approval of a CW destruction program."

Kuntsevich's departure does not appear to have had an effect on Russian efforts toward ratification of the Convention.

OBSTACLES

Question 17. What do you see as the greatest obstacles, if any, to the Chemical Weapons Convention's effectiveness?

a. To what extent could pariah, non-signatory states be a significant problem?

b. Do you expect verification problems to be of any particular significance?

c. Do you anticipate difficulties securing adequate funding?

Answer. At present, close to three-fourths of the countries believed to possess or to be seeking to acquire CW programs have signed the CWC. Ratification and implementation of the CWC by such countries will be important to the overall effectiveness of the CWC. Hold-out countries could deter others in their particular region from joining the Convention; however, many countries have noted they believe the CWC will improve their security by enabling them to maintain defensive programs and to obtain assistance under the CWC in the event of the use or threat of use of CW. We believe that, if such countries do not immediately join the Convention, they will come to realize that there are high costs associated with remaining outside and will eventually determine that it is in their national interest to join. The Convention will give the U.S. and the world community the means to pressure non-treaty members to join the treaty regime and to end their chemical weapons programs. The Convention accomplishes this goal through both disarmament and non-proliferation provisions.

The Convention is unprecedented in establishing a global norm against any use of chemical weapons as well as against the acquisition, development, production and stockpiling of such weapons. In accordance with CWC provisions, states remaining outside the Convention will be denied access to trade with States Parties in many chemicals needed for both chemical weapons production and industrial development. They will also be viewed as pariah states and subject to international pressure to abide by the norm established in the Convention.

Pursuant to Section 37 of the Arms Control and Disarmament Act, the U.S. Arms Control and Disarmament Agency is required to submit a report on the verification of treaties submitted to the Senate for ratification. That report represents a consensus of all the executive branch agencies involved in reviewing the Convention and reflects the view of the Administration.

The CWC is without precedent in scope, in that it will ban the use, development, production, acquisition, stockpiling, retention and direct and indirect transfer of chemical weapons. It is not only a disarmament treaty, eliminating existing programs, but also a non-proliferation treaty, banning the assistance, encouragement or inducement of anyone to engage in activities prohibited under the CWC. It includes trade restrictions against non-States Parties on many dual use chemicals of interest to developing countries. The declaration and inspection provisions of the CWC cover virtually every aspect of a chemical weapons program. In particular, a State Party has the right to request a challenge inspection of any location or facility located under the jurisdiction or control of any other State Party.

The U.S. negotiating objective in the development of verification provisions for the CWC was to ensure an appropriate balance between the need to protect sensitive, non-CW related information, as well as rights guaranteed in the U.S. Constitution, and the need for intrusiveness in the application of verification provisions to vigorously pursue suspected violations.

The memorandum accompanying the Section 37 report to Congress stated that it is the judgment of the Administration that the Convention is clearly in the interests of the United States. That judgment rests in part on the verification regime analyzed in the report. It also rests on the unique value of the Convention as a mechanism for rolling back CW proliferation and as a bulwark against further CW spread and use.

Of course, no treaty is 100 percent verifiable and every administration involved in the negotiations toward a comprehensive chemical weapons ban has recognized this. However, since the beginning of the CWC negotiations, the U.S. has strongly supported the position that the final agreement must be effectively verifiable. The Administration believes that the Convention is effectively verifiable.

A key criterion for our position and conclusion was whether and to what extent, once the CWC enters into force, potential violations by States Parties pose unacceptable risks to the interests of the United States. Additional criteria taken into account in determining effective verifiability were whether the CWC verification regime would:

- provide an acceptable level of confidence that States Parties are in compliance with its provisions;
- facilitate the ability of the U.S. to detect significant violations in a timely manner;
- serve to deter violations of the CWC provisions by increasing the political significance of a violation, and by raising the costs and risks associated with cheating; and
- be comprehensive in scope so that, when taken in the aggregate, the regime forms an interlocking web of information which promotes effective verification.

The CWC contains the most comprehensive and intrusive verification regime ever negotiated in an arms control treaty. The regime requires declarations as well as access to both declared and undeclared sites through routine and/or challenge inspections. Information to which the U.S. has access from these declarations and inspections will supplement our national intelligence resources and place us in a better position than we are now to detect clandestine CW programs. The CWC also requires suspected violators to undertake measures to satisfy compliance concerns or face punitive measures and possible sanctions.

It would be impossible to detect every activity prohibited under the Convention. That statement is as much a tribute to the comprehensiveness of the prohibitions under the Convention as to the detectability of such actions. However, as the ACDA Director testified before the Senate Foreign Relations Committee, under the CWC it will be increasingly difficult to conceal a CW program as the scope and size of such a program increases. As additional steps beyond development occur, the likelihood of detection will increase. The comprehensive verification provisions of the CWC further complicate a violator's ability to do this without detection.

Based on the Administration's assessment of the provisions of the Convention, the Administration has concluded that the Convention is effectively verifiable and that it both protects and serves our national security interests.

The Organization for the Prohibition of Chemical Weapons (OPCW) will be funded through States Parties contributions. It is important to note that, as of March 31, 1994, 92 percent of the 1993 budget assessment for the CWC Preparatory Commis-

sion had been paid. More than half of the Member States had paid their contributions in full or made payments on account. Also, for the same time period, 62.2 percent of the assessed contributions for Part I of the CY 1994 budget have been paid. Both of these are higher percentages than international organizations normally are able to collect, indicating significant international support for this convention.

AUSTRALIA GROUP

Question 18. The Australia Group has been an independent export control regime with a number of participants including the United States.

a. Do you believe the Australia Group effort should be continued when the Chemical Weapons Convention enters into force?

b. If so, what could the Australia Group accomplish that could not be done under the Convention?

Answer. Yes. Article I of the Chemical Weapons Convention prohibits States Parties from assisting anyone to engage in any activity prohibited to a State Party under the Convention. The continued operation of the informal Australia Group after the CWC enters into force is consistent with the provisions of the CWC and will serve to support this basic obligation by precluding any inadvertent assistance to anyone to acquire a chemical weapons capability. The Australia Group will continue to support and complement the objectives of the CWC by allowing members to harmonize their export controls on dual-use CW-relevant chemicals and share information on the proliferation of chemical weapons.

Since the Australia Group first met in 1985, its members have consistently voiced their strong support for the early, effective and universal implementation of the CWC.

The Australia Group controls some items not covered under the CWC, such as biological agents and production equipment. In addition, the Group controls certain chemicals and production equipment, currently sought by proliferators, which are not specifically covered in the CWC.

LOSS OF PROPRIETARY INFORMATION

Question 19. A preeminent concern of the U.S. chemical industry is the potential loss of confidential information through the CWC reporting requirements or on-site inspections. CWC negotiators have sought to allay this concern in a variety of ways.

a. For clarity's sake, would you detail for the Committee the specific provisions of the Convention, actions of the Preparatory Commission, and efforts in the development of the National Authority intended particularly to safeguard proprietary information?

b. To what extent will the U.S. government assume liability for the release of proprietary information?

c. Will the OPCW assume any liability?

d. What procedures will the U.S. government or the OPCW establish to permit private industry or institutions to obtain monetary compensation for loss of proprietary information?

e. Will data collected to fulfill treaty reporting requirements be forwarded to the OPCW in aggregate form, or will plant specific data be available to the OPCW?

Answer. At the request of the chemical industry, the Chemical Weapons Convention contains provisions designed to protect confidential business information (CBI) from unauthorized disclosure. These provisions were developed during the treaty negotiations in Geneva with the active participation of the U.S. Chemical Manufacturers Association and other trade associations representing the international chemical industry. The major chemical industry associations support the Convention and believe that treaty compliance will not pose an undue burden on industry.

The CWC protects against the loss of proprietary information through a number of provisions. The key provisions of the Convention are found in Article VI (Activities Not Prohibited Under the Convention) and its related parts in the Verification Annex (Part II: General Rules of Verification, Part III: General Provisions for Verification Measures Pursuant to Articles IV, V and VI, Parts VI-VIII: Regimes for Declarations, Inspections and Transfers of Schedules 1, 2 and 3 respectively, and Part IX: Regime for Declaration and Verification of Other Chemical Production Facilities). Also the provisions in Article IX and relevant Verification Annex Part X dealing with challenge inspections provide protection against loss of sensitive non-CW related information. Finally, the Annex on the Protection of Confidential Information, known as the "Confidentiality Annex", specifically provides for the handling of confidential information, relevant aspects of employment and conduct of personnel, measures to protect sensitive installations and prevent disclosure of confidential data in the course of on-site verification activities, and procedures in case of

breaches or alleged breaches of confidentiality. These provisions of the Convention for routine and challenge inspections and for the handling and dissemination of information by OPCW personnel provide protection in a number of ways.

With regard to routine inspections, CBI can be safeguarded through the facility's opportunity to have a facility agreement negotiated with the CWC international organization specifying the nature of access and the information to be collected in routine inspections. Plant officials do not have to grant the inspection team access to commercially sensitive areas unrelated to the CWC or to data that do not contribute directly to the verification of CWC compliance. Categories of information falling outside the scope of the routine inspection regime include proprietary information such as technical details of the production process (e.g. temperature, pressure or catalysts) and marketing information. Inspected facilities can store sensitive documents that the inspection team must consult repeatedly (e.g., photographs, process flow charts, or notebooks) in a safe located at the facility. The inspected facility also has the right to take requested photographs or samples instead of the inspection team. The inspected State Party has the right to inspect any instrument used or installed by the inspection team and to have it tested in the presence of representatives of the inspected State Party.

Under challenge inspections, States Parties have the right and ability to manage access to their facilities by negotiating the extent and nature of access within the site (beyond that provided under routine inspections at declared facilities), the activities of the inspection team and the inspected State Party's activities and provision of information. State Parties also have the right to take steps to prevent disclosure of sensitive information not related to chemical weapons, through, e.g., shrouding, and to take steps to provide alternative means to clarify compliance concerns in the event access is restricted.

The Confidentiality Annex, *inter alia*, provides procedures for States Parties to designate sensitive information requiring special handling and to have their concerns about breaches of confidentiality investigated. Furthermore, the Annex provides for the establishment of levels of sensitivity of confidential data or documents, based on uniformly applied criteria, in order to ensure appropriate handling and protection of sensitive information.

Access to confidential information is to be regulated in accordance with classification and the dissemination of such information within the Organization will be strictly on a need-to-know basis. The Annex requires the Preparatory Commission to develop a classification system for approval by the Conference of the States Parties after the Convention enters into force. The Annex further provides procedures for governing the protection and release of information and procedures for punitive action against employees who violate these rules.

During the negotiations, many of the negotiating countries performed national trial inspections to provide an experience base upon which to develop effective inspection provisions. The U.S. conducted four national trial inspections at commercial industry facilities which served to provide not only a greater degree of realism in the inspection provisions of the Convention but to facilitate development of provisions protecting industry concerns.

Actions Taken by the PrepCom

The Confidentiality Annex requires the Preparatory Commission to, *inter alia*, develop a classification system for approval by the Conference of the States Parties after the Convention enters into force. The PrepCom is working on such a system, as well as developing detailed procedures to follow in cases of an alleged breach of confidential information and procedures for the protection and dissemination of confidential information. As with all the work of the PrepCom, its recommendations must be approved by the Conference of the States Parties shortly after the Convention enters into force.

Additionally, the U.S. has provided to the Preparatory Commission a U.S.-designed information management system, incorporating a security system, for consideration by the OPCW. This system is likely to be approved for use by the OPCW. The PrepCom is currently reviewing this system with a view to even further strengthening the security aspects.

With regard to other industry-relevant work of the Preparatory Commission, members of U.S. industry are directly involved in the elaboration of detailed procedures for declaration and inspection of chemical industry both in The Hague and in Washington.

USG Efforts in Developing Implementing Legislation

On May 27, 1994 the Administration submitted to Congress the proposed "Chemical Weapons Convention Implementation Act of 1994." During the development of

the proposed Act, comments were solicited from industry, specifically the Chemical Manufacturers Association (CMA) and twelve other industry associations, as well as from staffs of the Congressional committees responsible for foreign relations, the armed forces, the judiciary, and intelligence matters.

The proposed Act prohibits the public disclosure of information or materials obtained by declarations or inspections, including through the Freedom of Information Act, except to the Organization for the Prohibition of Chemical Weapons (OPCW), to appropriate committees of the Congress, for law enforcement purposes, and when disclosure is determined to be in the national interest. Significant penalties are provided for unauthorized disclosures.

We continue to involve chemical industry in the elaboration of detailed procedures for inspection and declarations in the Preparatory Commission and have underway an extensive outreach program to U.S. industry. We are conducting regional educational seminars for industry and are contacting companies individually and through trade associations to familiarize them with their obligations under the CWC and to help them prepare for declarations and inspections. Additionally, we have made available to industry and Congress a series of papers on the provisions of the Convention affecting and protecting industry.

The principal method chosen by the U.S. Government to address the issue of liability for the wrongful acts of Technical Secretariat personnel has been to create provisions in the Chemical Weapons Convention and the proposed implementing legislation that have as their purpose the prevention of the acts in the first place. For example, the CWC's verification regime contains a number of provisions for protecting sensitive information unrelated to the CWC from being obtained. These include: the right of the inspected facility to have a facility agreement specifying the nature of access and the information to be collected in routine inspections; the right of the United States to manage access in challenge inspections; and the right of the inspected facility to take requested photographs or samples instead of the inspection team.

The Administration's proposed Chemical Weapons Convention Implementation Act of 1994 provides, with limited exceptions, for an extensive prohibition on the disclosure of information or materials obtained from declarations or inspections required under the CWC. This provision is designed to allow the U.S. Government to withhold CWC-related information from requests for disclosure under the Freedom of Information Act.

Finally, there are some legal avenues for redress available. U.S. firms and individuals may be able to bring a lawsuit against inspectors and other Technical Secretariat personnel for their unlawful action if the Director-General of the Technical Secretariat waives their immunity from suit in U.S. courts for their official acts, as provided for in the CWC. In addition, these firms may be able to bring a lawsuit against the United States under the Just Compensation Clause of the Fifth Amendment to the Constitution (Takings Clause).

Plant specific data will be provided to the OPCW. The CWC requires data reporting on a plant specific basis. The U.S. National Authority will collect and compile the appropriate data from U.S. industry and forward it to the OPCW.

RESPONSES OF MR. LEDOGAR TO QUESTIONS ASKED BY THE COMMITTEE

Question. Do you believe the United States should press strongly to reopen negotiations on the Biological and Toxin Weapons Convention of 1972 in order to establish the verification regime which does not presently exist for that Convention?

Answer. At the September 1991 Biological Weapons Convention (BWC) Third Review Conference, States Parties mandated the convening of an Ad Hoc Group of Government Experts to identify and examine potential verification measures from a scientific and technical standpoint. The Ad Hoc Group completed its work in September 1993 and circulated a consensus report to all States Parties. Consistent with the mandate, a Special Conference of States Parties will take place in September 1994 to consider further action. The U.S. objective for the Special Conference is for the Conference to adopt a mandate that will provide for subsequent drafting of a legally binding protocol which will establish a set of mutually reinforcing transparency measures designed to deter violations of the BWC and to strengthen confidence in compliance with its provisions.

The U.S. strongly opposes any approach to the BWC which would subject the Convention to amendment, as would be the case if it were reopened.

MARCH 22, 1994

RESPONSES OF MR. HOLUM TO QUESTIONS ASKED BY SENATOR LUGAR*

RETALIATORY CAPABILITY

Question 1. Having renounced CW, even as a means of retaliation, how will the U.S. deal with the risk that a non-party, or violator, might use CW against the United States?

Is it the view of the national security community that, even though the CWC may not be universal or universally complied with, the ability of the U.S. to retaliate with CW is no longer a necessary element in countering chemical weapons?

Is it the view of the national security community that U.S. national security is better served by concluding a comprehensive ban than by retaining a small retaliatory capability?

What are the range of effective alternative retaliatory capabilities?

In brief, does the security community share the view that the U.S. does not need chemical weapons in order to deliver an effective response to CW?

Answer. Even though we recognize that the CWC may not be universal or universally complied with, DOD believes that the ability to retaliate with CW is no longer a necessary element in countering chemical weapons. Two successive Administrations have concluded that U.S. national security is better served by concluding a comprehensive ban on chemical weapons than by retaining a small retaliatory capability. Fundamentally, DOD supports giving up the right to retaliate with CW because we have an effective range of alternative retaliatory capabilities. Our protective capabilities have been and will be improved, partly as a result of the Gulf War experience. But we will not rely on protection alone. For obvious reasons, we do not choose to specify in detail what responses we would make to a chemical attack. However, as was stated during the Gulf War, if any country were foolish enough to use chemical weapons against the United States, the response will be "absolutely overwhelming" and "devastating." That policy stands: we have reached the judgment that we do not need to retain chemical weapons to deliver an effective response to the use of chemical weapons against us.

CHEMICAL WEAPONS DESTRUCTION

Question 2. What is the likely cost of destroying our chemical stocks?

Since the U.S. has already assumed voluntarily the overwhelming majority of obligations in the CWC, how far has the destruction process proceeded and what costs have been incurred thus far?

Can the stockpiles be destroyed safely? The Army reported to the Congress on its consideration of the National Research Council's recommendations on alternative technologies for the destruction of chemical weapons. The Army concluded that the baseline incineration destruction process is safe and effective. It also agreed that the risks from continued storage of the stockpile outweigh the potential risks of delaying destruction of an aging stockpile by incineration are greatly less than the advantages that might possibly be gained by waiting for other technologies to be proven and made practically available. Would those views be shared by officials in other governments party to the CWC, signatories that will have to destroy their own stockpiles?

Answer. The estimated cost for destroying our chemical stocks is approximately \$10 billion. These costs would be incurred irrespective of whether the U.S. becomes a party to the CWC. The cost of destroying other items, as required by the CWC (i.e., non-stockpile material, including chemical weapons production equipment) is approximately \$1 billion. These figures do not include treaty verification costs. As of March 31, 1994, costs of \$1.7 billion have been incurred, or disbursed, for chemical weapons disposal since the program's inception in FY 1988.

To date, two chemical disposal facilities have been constructed: the Johnston Atoll Chemical Agent Disposal System (JACADS) in the Pacific Ocean, and the Tooele Chemical Agent Disposal Facility in Tooele, Utah. Full-scale operations commenced at JACADS in January 1994 and are scheduled to begin at the Tooele facility in March 1995. Construction of the Anniston Chemical Agent Disposal Facility is currently in the solicitation stage. Additionally, destruction of non-stockpile items, as required by the CWC, is in the planning stage. To date, over 75,000 individual munitions and 300 tons of agent have been destroyed at the JACADS facility.

The Department of Defense's position is that the chemical stockpiles can be safely destroyed using the baseline incineration destruction process. The National Re-

* Answers to questions 3, 5, and 7 are contained in a separate classified document.

search Council (NRC) of the National Academy of Sciences recently concluded that baseline incineration is a safe and effective process for destroying chemical agents and munitions. The NRC also concluded that the risks from continued storage of the stockpile outweigh the potential risks of incineration.

It is up to States Parties to the CWC to determine the method of destruction of their CW stocks, as long as the method meets the terms of the CWC, which state, *inter alia*, that the following processes may not be used: dumping in any body of water, land burial, or open-pit burning.

PROTECTING NATIONAL SECURITY INFORMATION

Question 4. Can the U.S. protect the privacy of its people and businesses, and its national security information and industrial technology, from compromise through the CWC's verification system?

Answer. The CWC verification regime takes into account the Constitutional obligations of States Parties. The Administration's proposed implementing legislation is designed to further protect these obligations in the course of U.S. implementation of the Convention for both routine and challenge inspection. Thus the rights of American citizens are not compromised by the CWC.

At the request of the chemical industry, the Chemical Weapons Convention contains provisions designed to protect confidential business information (CBI) from unauthorized disclosure. These provisions were developed during the treaty negotiations in Geneva with the active participation of the U.S. Chemical Manufacturers Association and other trade associations representing the international chemical industry. The major chemical industry associations support the Convention and believe that treaty compliance will not pose an undue burden on industry.

The CWC protects against the loss of proprietary information through a number of provisions. The key provisions of the Convention are found in Article VI (Activities Not Prohibited Under the Convention) and its related parts in the Verification Annex (Part II: General Rules of Verification, Part III: General Provisions for Verification Measures Pursuant to Articles IV, V and VI, Parts VI-VIII: Regimes for Declarations, Inspections and Transfers of Schedules 1, 2 and 3 respectively, and Part IX: Regime for Declaration and Verification of Other Chemical Production Facilities). Also the provisions in Article IX and relevant Verification Annex Part X dealing with challenge inspections provide protection against loss of sensitive non-CW related information. Finally, the Annex on the Protection of Confidential Information, known as the "Confidentiality Annex", specifically provides for the handling of confidential information, relevant aspects of employment and conduct of personnel, measures to protect sensitive installations and prevent disclosure of confidential data in the course of on-site verification activities, and procedures in case of breaches or alleged breaches of confidentiality. These provisions of the Convention for routine and challenge inspections and for the handling and dissemination of information by OPCW personnel provide protection in a number of ways.

With regard to routine inspections, CBI can be safeguarded through the facility's opportunity to have a facility agreement negotiated with the CWC international organization specifying the nature of access and the information to be collected in routine inspections. Plant officials do not have to grant the inspection team access to commercially sensitive areas unrelated to the CWC or to data that do not contribute directly to the verification of CWC compliance. Categories of information falling outside the scope of the routine inspection regime include proprietary information such as technical details of the production process (e.g. temperature, pressure or catalysts) and marketing information. Inspected facilities can store sensitive documents that the inspection team must consult repeatedly (e.g., photographs, process flow charts, or notebooks) in a safe located at the facility. The inspected facility also has the right to take requested photographs or samples instead of the inspection team. The inspected State Party has the right to inspect any instrument used or installed by the inspection team and to have it tested in the presence of representatives of the inspected State Party.

Under challenge inspections, States Parties have the right and ability to manage access to their facilities by negotiating the extent and nature of access within the site (beyond that provided under routine inspections at declared facilities), the activities of the inspection team and the inspected State Party's activities and provision of information. State Parties also have the right to take steps to prevent disclosure of sensitive information not related to chemical weapons, through, e.g., shrouding, and to take steps to provide alternative means to clarify compliance concerns in the event access is restricted.

The Confidentiality Annex, *inter alia*, provides procedures for States Parties to designate sensitive information requiring special handling and to have their con-

cerns about breaches of confidentiality investigated. Furthermore, the Annex provides for the establishment of levels of sensitivity of confidential data or documents, based on uniformly applied criteria, in order to ensure their appropriate handling and protection of sensitive information.

Access to confidential information is to be regulated in accordance with classification and the dissemination of such information within the Organization will be strictly on a need-to-know basis. The Annex requires the Preparatory Commission to develop a classification system for approval by the Conference of the States Parties after the Convention enters into force. The Annex further provides procedures for governing the protection and release of information and procedures for punitive action against employees who violate these rules.

During the negotiations, many of the negotiating countries performed national trial inspections to provide an experience base upon which to develop effective inspection provisions. The U.S. conducted four national trial inspections at commercial industry facilities which served to provide not only a greater degree of realism in the inspection provisions of the Convention but to facilitate development of provisions protecting industry concerns.

On May 27, the Administration submitted to the Congress its proposed CWC implementing legislation, the "Chemical Weapons Convention Implementation Act of 1994." During the development of the proposed Act, comments were solicited from industry, specifically the Chemical Manufacturers Association (CMA) and 12 other industry associations, as well as from staffs of the Congressional committees responsible for foreign relations, the armed forces, the judiciary, and intelligence matters.

The proposed Act prohibits the public disclosure of information or materials obtained by declarations or inspections, including through the Freedom of Information Act, except to the Organization for the Prohibition of Chemical Weapons (OPCW), to appropriate committees of the Congress, for law enforcement purposes, and when disclosure is determined to be in the national interest. Significant civil and criminal penalties are provided for unauthorized disclosures.

The Administration continues to work closely with the chemical industry in elaborating the detailed procedures for inspection and declarations being negotiated in the Preparatory Commission, and also has under way an extensive outreach program to U.S. industry. We are conducting regional educational seminars for industry and are contacting companies individually and through trade associations to familiarize them with their obligations under the CWC and to help them prepare for declarations and inspections. Additionally, we have made available to industry and Congress a series of information papers on the provisions of the Convention affecting and protecting industry.

Question. What safeguards are provided against frivolous or contrived inspection demands?

Answer. Paragraph 17 of Article IX of the Convention provides for the Executive Council (on which the U.S. is expected to have a permanent seat) to consider each challenge inspection request upon receipt from the requesting State Party, to determine if it is "frivolous, abusive or clearly beyond the scope of this Convention." The Executive Council can, within 12 hours of receiving the request and by a three-quarters majority vote, stop such a challenge inspection request from being carried out. Paragraph 22 of Article IX also notes the role of the Executive Council in reviewing the final report of the inspection to "address any concerns" as to "whether the right to request a challenge inspection had been abused." Additionally, the inspection procedures themselves are designed to provide protection for sensitive non-CW related information.

Question. In brief, what protections apply with respect to challenge inspections? What is the meaning of "managed access" with respect to the nature and extent of the intrusion within an inspection site?

Answer. Prior to signing the CWC, the Administration determined that the verification regime effectively balances the need for intrusive measures to address compliance concerns against the U.S. need to protect sensitive non-CW information, as well as Constitutional privacy rights and proprietary information. CWC provisions on routine and challenge inspections enable us to control access to sensitive or private facilities in a manner that protects our interests.

Under the challenge inspection provisions, the inspected State Party has the right to manage access to its facilities by negotiating the extent and nature of the access granted the inspection team within the site (beyond that provided under routine inspections of declared facilities), the activities of the inspection team, and the inspected State Party's activities and provision of information. The CWC also gives States Parties the right to take measures during an inspection to shield sensitive installations and to prevent disclosure of sensitive information not related to chemical weapons during an inspection. (In the event access is restricted, the inspected

State Party must make every reasonable effort to provide alternative means to clarify the compliance concern that instigated the inspection.) Finally, the Confidentiality Annex contains provisions for the handling and disclosure of sensitive information and thus for its protection.

Question. The Convention provides that the inspected state may also take into account any constitutional obligations it may have with regard to proprietary rights or searches or seizures, but it also provides that if a state provides less than full access, it must make every reasonable effort to provide alternative means to clarify the possible non-compliance concern. What constitutional obligations are we talking about, and what alternative means are envisioned to clarify non-compliance concerns if less than full access is granted?

Answer. Given the CWC obligation to "allow the greatest degree of access" for challenge inspections, the U.S. expects to conduct challenge inspections of private facilities pursuant to administrative search warrants. Recognizing, however, that it might be necessary to use search warrants based on criminal probable cause, the U.S. negotiated the addition of a corollary right to "tak[e] into account any constitutional obligations it may have with regard to * * * searches and seizures" during challenge inspections under the CWC. Accordingly, the U.S. would not be in violation of the CWC if access to a privately owned facility had to be limited or severely restricted because it proved impossible to obtain access in a constitutionally permissible manner, i.e., in accordance with, *inter alia*, the Fourth Amendment protections against unreasonable searches. Alternative means of clarifying compliance concerns in the event of restricted access will be determined on a case-by-case basis. The means offered will depend *inter alia* on the alleged violation, the best means available to the site to alleviate concerns, and any sensitive information needing protection at the site.

RIOT CONTROL AGENTS

Question 6. What about the use of riot control agents for legitimate purposes?

The CWC does not treat riot control agents as chemical weapons; they are not recognized as chemical agents and use is allowed for law enforcement and domestic riot control. However, the Convention does prohibit the use of riot control agents as a "method of warfare."

Neither the CWC nor the formal negotiating record define "method of warfare." What is the understanding of the national security community, including DOD and the intelligence community, as to what constitutes "method of warfare?"

The Administration has indicated that prohibition of riot control agents as a method of warfare applies only to their use in international and internal armed conflict, but that use of RCAs for operations such as peacekeeping operations, counterterrorism and hostage rescue are unaffected by the CWC. Currently, use of RCAs in war for U.S. forces is guided by Executive Order 11850. What is the thrust of that Order, and how does the Convention's prohibition on RCA use as a method of warfare affect that Executive Order? Can the current or modified Order coexist with a Convention provision on RCA use, or would a Convention provision supersede any Executive Order in this area?

Answer. This question will be answered separately at a later date.

MAY 17, 1994

RESPONSES OF MR. MAHLEY TO QUESTIONS ASKED BY THE COMMITTEE

Question. What is the cost of destroying U.S. chemical stocks?

Answer. The life cycle cost of the U.S. chemical weapons demilitarization program is currently estimated to be about \$10 billion.

Question. How far has the destruction process already proceeded?

Answer. The first chemical weapons destruction facility at Johnston Atoll, is in full operation. The second facility at Tooele Army Depot, Utah, will start operations in the spring of 1995. To date, 336 tons of chemical agents have been destroyed at Johnston Atoll. This figure comprises about 75,000 munitions and some 130 bulk containers. Seven more facilities will be constructed at the chemical weapons stockpile storage sites in the U.S. in order to complete destruction of the U.S. chemical weapons stockpile by 2004, as mandated by Congress.

Question. What costs have been incurred thus far?

Answer. To date, the U.S. has spent \$1.7 billion (dispersed funds, Fiscal Years 1988-94) in support of the U.S. chemical weapons demilitarization program.

Question. The Army concluded that the baseline incineration destruction process is safe and effective. It also agreed that the risks from continued storage of the stockpile outweigh the potential risk from incineration. The basic judgment is that

the risks of delaying destruction of an aging stockpile by incineration are greatly less than the advantages that might possibly be gained by waiting for other technologies to be proven and made practically available. Would these views be shared by officials in other governments? That is, other national governments, party to the CWC, signatories that will have to destroy their own stockpiles in addition to whatever arrangements we may make?

Answer. The recent report of the National Research Council of the National Academy of Sciences concludes that the baseline destruction process is a safe and effective disposal process for the chemical weapons stockpile, and that destruction using this technology is safer than continued long-term storage. Further, delaying destruction operations while other processes are explored could increase life cycle costs, the time required to destroy the stockpile, and total risk associated with chemical weapons disposal. Our present program can ensure environmentally safe destruction within the 10-year timeline of the CWC.

With regard to CW destruction, Part IV(A) of the CWC Verification Annex, paragraphs 12 and 13 state, respectively, that "Destruction of chemical weapons" means a process by which chemicals are converted in an essentially irreversible way to a form unsuitable for production of chemical weapons, and which in an irreversible manner renders munitions and other devices unusable as such. Each State Party shall determine how it shall destroy chemical weapons, except that the following processes may not be used: dumping in any body of water, land burial or open-pit burning. It shall destroy chemical weapons only at specifically designated and appropriately designed and equipped facilities."

Russia has not made a final decision on their destruction process and, to our knowledge, no other country has indicated what plans they may have with regard to destruction processes for chemical weapons they may possess. Each country's decision will have to take into account the types and quantities of chemical weapons in their stockpile, environmental requirements, and financial considerations.

JUNE 23, 1994

RESPONSES OF MR. HOLUM TO QUESTIONS ASKED BY SENATOR MOYNIHAN *

No doubt you are aware of the allegations which have been made by veteran Soviet chemical weapons scientist Vil Mirzayanov concerning the steps which may have been taken by the Russian military establishment to evade the purpose and intent of the chemical weapons treaty. In sum, he alleges that Russian authorities have worked actively to preserve and exploit loopholes in the treaty arising from recent breakthroughs in chemical weapons research which are unknown in the West. Among other things, he alleges that:

(1) He is a 26-year veteran of the Soviet and Russian chemical weapons program;

(2) He personally "witnessed" internal Russian discussions preceding the signing of the chemical weapons treaty;

(3) Between 1985 and 1991 Soviet scientists made significant breakthroughs in chemical weapons research which are not known in the West and not identified in the treaty; and

(4) Russian authorities have altered records at production facilities to disguise the existence of new, highly lethal compounds.

If there is merit to these allegations, they would raise disturbing questions about not only the efficacy of the Convention, but also about the good faith of some of the Russian authorities. His allegations raise the following questions:

Question 1. Have representatives of the Administration debriefed Mirzayanov?

Answer. No.

Question 4. (Question 3 asks if the Administration believe that Russian authorities have developed new chemical weapons compounds which they have not disclosed to the United States.) If so, how will the production of such weapons be controlled by the Convention?

Answer. Dr. Mirzayanov claims the CWC contains loopholes which would allow Russia to proceed with its secret CW program. There are no such loopholes permitting such activity. A review of the key provisions of the CWC demonstrates that, as well as banning the development of chemical weapons, the declaration and inspection provisions of the CWC cover virtually every aspect of a chemical weapons program. Additionally, a State Party has the right to request and have conducted

* Note.—The answers to questions 2 and 3 are provided in a separate classified document.

a challenge inspection of any location or facility located in any place under the jurisdiction or control of any other State Party.

The CWC is clear with regard to obligations regarding chemical weapons. A State Party is required to declare in detail all chemical weapons it owns or possesses as well as any other chemical weapons located in any place under its jurisdiction or control. It must also provide inspectors access to such weapons for initial inspection to verify the declarations, routine inspections of storage until destruction, and monitoring of actual destruction.

States Parties must make declarations on chemicals that meet the CWC definition of chemical weapons, whether or not such chemicals are listed in the Schedules of chemicals contained in the Convention. The Schedules of chemicals in the CWC are not intended to be exclusive, but open-ended. The operative provision for CWC coverage of chemicals of concern is the definition of chemical weapons.

The definition of "chemical weapons" was designed to facilitate verification and to preclude loopholes with regard to unknown or future chemicals of possible concern. Thus, "chemical weapons" applies, *inter alia*, to "toxic chemicals and their precursors, except where intended for purposes not prohibited under this Convention, as long as the types and quantities are consistent with such purposes." A toxic chemical is defined as "any chemical which through its chemical action on life processes can cause death, temporary incapacitation or permanent harm to humans or animals. This includes all such chemicals, regardless of their origin or their method of production, and regardless of whether they are produced in facilities, in munitions [e.g., binary] or elsewhere." Non-prohibited purposes specified in the CWC are:

"(a) industrial, agricultural, research, medical, pharmaceutical or other peaceful purposes;

"(b) protective purposes, namely those purposes directly related to protection against toxic chemicals and to protection against chemical weapons;

"(c) military purposes not connected with the use of chemical weapons and not dependent on the use of the toxic properties of chemicals as a method of warfare; and

"(d) law enforcement including domestic riot control purposes."

The definition of chemical weapons, in particular the allowance for use of toxic chemicals for non-prohibited purposes "as long as the types and quantities are consistent with such purposes," is intended to provide the basis for inspectors to question findings of chemicals which seem to be inconsistent with their use for non-prohibited purposes. In other words, States Parties must be able to justify the types and quantities of such chemicals or face suspicion and potential follow-on action from the CWC organization.

A further note of explanation on the open-ended schedule of chemicals may be useful. The Annex on Chemicals contained in the CWC contains three categories of treaty controlled chemicals (designated Schedules 1, 2 and 3 in decreasing order of perceived risk) based, *inter alia*, on the toxicity of the chemicals, whether they have been stockpiled as chemical weapons, their potential role in the production of chemical weapons, and the degree to which they are used in industry. This Annex also provides criteria to be taken into account in future placement or rearrangement of chemicals on the schedules. To allow for potential future chemicals of concern, the Annex is flexible, permitting additions or changes without a formal amendment process.

The obligations of the CWC will require States Parties to make detailed declarations on CW-relevant facilities and activities, subject declared facilities to routine inspection and subject all facilities and locations to challenge inspections. Thus the CWC will put Russian activities under international scrutiny and provide the international community with mechanisms to respond to non-compliant action with punitive measures or possible sanctions.

Question 5. Have Mirzayanov's allegations raised concern within the Administration about the ability of the United States to verify compliance with the Convention?

Answer. The Intelligence Community, while noting certain monitoring limitations, has stated that the U.S. is better off with the information and access provided by the CWC than without it. In fact, the CWC will **improve** the U.S. ability to obtain information about other countries' CW efforts, including any efforts by Russia to develop new chemical agents as Mirzayanov alleges. The CWC will **aid and facilitate** U.S. monitoring and detection of clandestine activities by providing U.S. access to certain information from States Parties declarations of CW production facilities and storage sites and relevant chemical industry facilities and activities. The U.S. will also have access to certain information from routine and challenge inspections of declared and undeclared facilities and locations. Information can build confidence or serve to flag or confirm suspicious activities. We can then pursue our questions or

concerns through CWC mechanisms such as consultative procedures and challenge inspection.

The CWC contains the most comprehensive and intrusive verification regime ever negotiated in an arms-control treaty. The declaration and verification provisions cover virtually every aspect of a chemical weapons programs. The provisions require detailed initial and annual declarations as well as the provision of access to both declared and undeclared facilities and locations through routine and challenge inspections. Information to which we have access from these declarations and inspections will supplement our national intelligence resources and place us in a better position than we are now to detect clandestine chemical weapons programs of States Parties.

The CWC also requires suspected violators to undertake measures to satisfy concerns about their compliance or face punitive measures. The Conference of the States Parties can recommend to States Parties that they impose collective sanctions in the event of serious cases of non-compliance, and must bring cases of particular gravity to the attention of the UN General Assembly and Security Council.

The Administration has determined that the CWC is effectively verifiable and that it will improve our national security interests. The net effect of the CWC provisions will increase the risk of detection and the political price of non-compliance, thus serving to deter potential CWC violators. No treaty is 100 percent verifiable; thus, since the beginning of the negotiations, the U.S. has taken the position that the final agreement must be effectively verifiable. The Administration believes that the CWC is effectively verifiable, and that it protects and enhances U.S. national security interests. This conclusion is reflected in the verification report required by Section 37 of the Arms Control and Disarmament Act submitted to the Senate. That report reflects a consensus of the executive branch agencies and intelligence community. The key criteria taken into account in our determination of effective verifiability were:

- whether potential violations pose unacceptable risks to U.S. interests;
- whether the CWC provides an acceptable level of confidence that States Parties are in compliance with provisions;
- whether the CWC facilitates the ability of the U.S. to detect significant violations in a timely manner;
- whether the CWC serves to deter violations by increasing the political significance of violations, raising costs and risks associated with cheating; and
- whether the CWC was comprehensive in scope, so when taken in the aggregate, the regime provides an interlocking web of information which promotes effective verification.

The Administration has determined that:

- the CWC provisions will detect significant violations;
- the United States does not need CW to deter CW use against its forces because superior U.S. military force, coupled with a modern defensive program, is quite adequate to deter or respond to CW use.

The CWC will serve to deter potential violators by making CW production and stockpiling more difficult and expensive.

- Routine, short-notice inspections of declared facilities will force violators to abandon their CW programs or relocate them to clandestine sites;
- The scope of the CWC's provisions cover virtually every aspect of a CW program from development and testing to production, storage and destruction. As scope and size of a program increases, it is more likely that the activities will be detected.

Questions 6 and 7. In light of the allegations (by Mirzayanov), does the Administration still believe that the United States should ratify the Convention? If so, why?

Answers. Yes. The obligations of the CWC will require States Parties to make detailed declarations on CW-relevant facilities and activities, subject declared facilities to routine inspections and subject all facilities and locations to challenge inspections. Thus, the CWC will put the activities of Russia and other States Parties under international scrutiny and provide the international community with mechanisms to investigate suspicious activity and to respond to non-compliant action with punitive measures or possible sanctions.

Russia is not the only country of concern. The U.S. is concerned about the activities of a number of other countries and believes it is necessary to bring the CWC into force as quickly as possible to address their programs as well. Almost three-fourths of the countries believed to have or to be seeking to acquire chemical weapons programs have signed the CWC.

RESPONSES OF MR. HOLUM TO QUESTIONS ASKED BY SENATOR HELMS*

Question 2. What steps has ACDA taken to press the Russian government to reveal new binary compounds? Has Russia done so?

Answer. ACDA has worked closely with the State Department to press the Russian Federation to provide the United States with an official statement as to whether or not allegations in the Russian press concerning Russian development of new types of chemical weapons are true. The United States has also asked Russia for consultations to discuss questions regarding their Phase II Wyoming Memorandum of Understanding declaration, including the absence of information on new types of chemical agents. The Administration will continue to press these issues with the Russians until all questions are resolved satisfactorily.

Question 3. Has the Administration objected to the Russian denial of a passport to Vil Mirzayanov, a Russian scientist who has revealed a covert Russian binary weapons program?

Answer. Amb. Pickering has officially raised this issue with the Russian government.

Question 4. As per the request of the GAO, will the United States be reimbursed for some of the costs of U.S. research and development efforts which directly support the chemical weapons verification regime?

Answer. The recommendation to seek reimbursement from the CWC Preparatory Commission is impractical and could, if implemented, surrender U.S. security efforts to international dictates. CW verification research and development is essential to U.S. security interests worldwide for the early detection, characterization and verification of CW programs. Moreover, the specific research and development costs cited in the report arose from anticipated requirements stemming from U.S. bilateral agreements with the Russians and happen to have direct application to the CWC. To conclude that these costs are a sole function of the CWC verification requirements is incorrect.

Question 5. How will the right of the OPCW to inspect private, civilian facilities be harmonized with the Fourth Amendment (protection against unreasonable search and seizure) and the Fifth Amendment (self-incrimination)? Will U.S. industries be subject to searches and seizures in relation to CWC challenge inspections?

Answer. There are two basic types of inspections under the Chemical Weapons Convention (CWC)—“routine” and “challenge”. Routine inspections will be conducted at facilities related to chemical weapons (i.e., chemical weapons storage, destruction and production facilities) and at chemical industry facilities that produce (and in some cases process or consume) chemicals listed in Schedules in the Convention (“Scheduled chemicals”) above specified thresholds. Starting at the beginning of the fourth year after the CWC enters into force, routine inspections will also be conducted at facilities that produce chemicals that can be used to produce Scheduled chemicals (“other chemical production facilities”), unless the CWC Conference of the States Parties votes otherwise. Challenge inspections can be conducted at any facility or location in the United States or in any other place under its jurisdiction or control.

All inspections of private facilities will be initiated on the basis of consent. However, in the presumably rare case in which consent is denied, most inspections would then be conducted using search warrants obtained on the basis of administrative probable cause, i.e., the Government demonstrates that the facility fits within a reasonable legislatively mandated inspection scheme. This mirrors the procedures used in similar inspections pursuant to domestic legislation, e.g., inspections of health code violations or toxic substance emissions. Some inspections of facilities that produce Schedule 1 chemicals (those of greatest risk to the object and purpose of the CWC) may, however, be conducted without warrants. If so, these inspections will comply with the conditions of the Supreme Court exception to the warrant requirement for inspections of “pervasively regulated industries.”

Given the CWC obligation to “allow the greatest degree of access” for challenge inspections, the U.S. expects to conduct challenge inspections of other private facilities pursuant to administrative search warrants. Recognizing, however, that it might be necessary to use search warrants based on criminal probable cause, the U.S. negotiated the addition of a corollary right to “tak[e] into account any constitutional obligations it may have with regard to * * * searches and seizures” in relation to CWC challenge inspections. Accordingly, the U.S. would not be in violation of the CWC if access had to be limited or severely restricted because it proved impossible to obtain access in a constitutionally permissible manner. This specific right to take into account constitutional obligations regarding searches and seizures also

* Note.—The answer to question 1 is provided in a separate classified document.

applies to routine inspections of "other chemical production facilities," since the rules for routine inspections of these facilities incorporate this right by reference.

The Fifth Amendment rights of personnel at U.S. facilities subject to inspection are also protected. While the CWC Verification Annex provides that inspectors have the right to interview any facility personnel in the presence of representatives of the inspected State Party, the CWC does not require that facility personnel answer the inspectors' questions, and therefore their Fifth Amendment rights are protected. The Administration's proposed draft CWC implementing legislation does provide for the issuance of a subpoena to require testimony of a witness and provision of answers in order to meet the U.S. Government's obligations under the CWC. However, the proposed legislation contains no provisions for compelling facility personnel to be interviewed or to provide answers to inspectors' questions.

LETTER AND STATEMENT OF CHARLES J. CONRAD

CHARLES J. CONRAD,
THOUSAND OAKS, CA,
June 2, 1994.

Hon. CLAIBORNE PELL,
Chairman, Committee on Foreign Relations,
Washington, DC.

DEAR SENATOR PELL: I had requested permission to address your Committee when the public hearing was held on ratifying the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction.

However I was informed that no individual would be allowed more than five minutes. Although I confined my remarks to only three items there was no way I could go through them in the allotted time, which makes a trip from California to Washington impractical.

It was the suggestion of your staff that I send a copy of my remarks to you and have them included in the printed hearing of your Committee.

This will, at least, allow my concerns about that Convention to appear on the record and I will be grateful for such action.

If you, or any Senator on your Committee or member of your staff desire further or more detailed information please contact me.

Very truly yours,

CHARLES J. CONRAD.

Enclosure:

Mr. Chairman and Members of this Senate Committee: My name is Charles J. Conrad. I ask that you not ratify the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction.

For 70 years, from 1899 when the United States was the one Nation to refuse to sign the Treaty of the Hague, until 1969 when, after 64 years, the Senate finally ratified the Geneva Protocol of 1925, the United States considered attempts to prohibit the use of chemicals in war impractical and even undesirable.

The most dramatic example was the refusal of this very Committee to ratify the Geneva Protocol of 1925. To do so at that time took great political courage, for the hysteria and propaganda against chemical warfare, so close to World War I, the only conflict in which chemical agents were extensively used, was filled with even more falsehoods and misleading statements than the support now given the Treaty before you in the news media and by various groups who, for years, attacked what then was the Chemical Corps.

I ask this Committee to have the same political courage as your counterpart of nearly three quarters of a century ago. For this Treaty not only is impossible to enforce, it denies our Armed Forces tools necessary in current and future missions.

That courage enabled President Eisenhower, after a study of various World War II engagements with Germany and Japan, especially the battle of Iwo Jima, to change the policy of the United States regarding chemical and biological warfare at Top Secret level. This policy continued during the administrations of Presidents Kennedy and Johnson. It ended when President Nixon urged and obtained approval of the Geneva Protocol of 1925. This was followed by our unilaterally destroying our entire stockpile of biological weapons and, finally, President Nixon's abolition of the Chemical Corps in 1974.

With that background I want to cite three arguments against ratification of this Treaty.

I. THIS TREATY DENIES OUR ARMED FORCES WEAPONS AVAILABLE TO CIVILIAN LAW ENFORCEMENT AGENCIES

With the breakup of the Soviet Union the main threat to our security no longer is a nuclear exchange between major powers. Instead we currently and, in the foreseeable future, will become involved in peacekeeping missions in conjunction with United Nations forces.

If the Senators will look at page 3 of the Convention it states "Each State Party undertakes not to use riot control agents as a method of warfare." Yet on page 6 under Purposes Not Prohibited Under this Convention is (chemicals used as) "Law Enforcement including domestic riot control purposes."

We know in Bosnia and Somalia where United Nation forces, guarding food supplies, were fired upon by a group including military and civilians intermixed. When United Nation troops returned fire they killed the military but, at the same time unavoidably caused fatalities among civilians, some of whom may have been there innocently or inadvertently.

Also the humiliating situation in which an American navy ship did not land at Haiti because of a threatening mob on shore. Had we landed under hostile fire local casualties certainly would have included civilians including women and children.

In these peacekeeping missions our forces desperately need incapacitating agents; that is to say weapons firing chemicals that immobilize a mob temporarily without causing fatalities.

In addition to riot control agents currently in use by law enforcement the Army has incapacitants in the research and development stage. One such agent known as ARCAD—Advanced Riot Control Agent—only needs final FDA tests and Congressional approval to be placed into production.

It is noteworthy when President Nixon asked the Senate to ratify the Geneva Protocol he inserted an exception allowing the use of riot control agents and herbicides in limited areas such as rescuing Americans in downed aircraft. Such exceptions were permitted under the Geneva Protocol but prohibited under this Convention. It must be taken "as is," no exceptions can be added by any individual State.

True, amendments to this Convention can be offered but such amendments can be vetoed by any one, repeat any one, of the signator States.

Lack of Congressional support Army Research and Development has been prevented from assisting local law enforcement by producing new methods of controlling riots. Again, ratifying this Convention would cause disputes because it would be charged the Army, in developing these agents, actually was preparing to use them in combat, prohibited by the Treaty, not just supplying them to local law enforcement, permitted by the Treaty.

II. THIS CONVENTION IGNORES THE WEAPON OF THE FUTURE—GENETICALLY ENGINEERED INEFFECTIVE AGENTS AGAINST WHICH NO CREDIBLE DEFENSE CURRENTLY IS POSSIBLE

Last year was the fortieth anniversary of the birth of genetic engineering. The discovery of the double helix structure of DNA, the giant molecule of heredity that cleared the way toward a great leap forward in human understanding of the processes of life.

In recent years the news media has featured stories relating the wonderful accomplishments and the great hope for benefiting human life, through the use of genetic engineering, in discovering causes of disease and being able to correct human defects caused by the faulty arrangement of human genes.

Some articles do include evils that could arise from misuse of molecular biology such as trying to create a "master race" or individuals being denied employment or insurance because their genetic makeup predisposes them to certain illnesses or handicaps.

Yet one evil always is ignored in those articles and broadcasts. It is confined to an occasional article or book read only by a few scientists or those in the military. U.S. Nobel laureate Joshua Lederberg warned genetic engineering "might be exploited for military purposes," adding "the potential undoubtedly exists for the design and development of infective agents against which no credible defense is possible."

The Convention before you contains pages listing all the chemical and biological agents signators to this Convention are required to identify along with the locations of their stockpile. Additional pages are devoted to methods of verification should another State or States believe one or more signators have not kept faith and destroyed that stockpile.

Yet in the entire 187 pages of this Convention not once do the words "genetic engineering" appear. Nor is there any mention of the possibility such weapons could

be developed by an outlaw nation, a nation not signator to this Convention or even by terrorist groups or drug cartels.

Supporters of the Convention can claim genetically engineered agents would come under the "catch all" provisions in Articles II and V. However, such weapons are new and, so far as known, still in the research stage. Again quoting Dr. Lederberg they "could well become the most efficient means for removing man from the planet." It would seem they would rate a special category in the text of the Convention.

Instead there has been a concerted effort either to ignore or discredit any article suggesting this could well be the weapon of the future.

Example: In 1984 William Kucewicz wrote a series of articles for the *Wall Street Journal* regarding Soviet research in the use of genetic engineering to expand Soviet ability to use neurotoxins as agents of war. Kucewicz' writings were viciously attacked in an article by Leonard A. Cole in the *Bulletin of Atomic Scientists*, an article that contained a number of inaccuracies.

More recently an American, member of a group invited to Russia on an exchange basis to examine their chemical warfare stockpile, told me any attempt to discuss past Soviet research in genetic engineering brought a blank response.

Now let me describe a completely possible scenario: Last April President Yeltsin fired his Chemical Warfare Chief, a man named Kuntsevich. Before the breakup of the Soviet Union, scientists working for the military lived well by Soviet standards. Now Kuntsevich, and doubtless others, are out of work or with a much reduced standard of living.

Such a scientist might be contacted by the representative of a Third World dictator, who would offer a large sum of money, in U.S. currency, to come to his country and set up a laboratory, ostensibly to discover the genetic defects causing a number of diseases in his country.

This project would be extensively advertised throughout the world and, indeed, most of that laboratory would be devoted to finding a cure for those illnesses.

There would be, however, one small section, not open to the world, where a new and deadly toxin is being created; undetectable until one breaks the genetic code. Such a toxin could be disguised in a manner described years ago in those articles by Mr. Kucewicz. Using DNA to splice that toxin with a common illness such as the flu. This toxin could be kept in small quantities, easily hidden, until it is used to attack another country.

Thus if our intelligence got wind of this development we would file a request for an investigation by the Director General and his technical staff.

While many pages of the Convention are devoted to expediting verification of charges by one nation against another, there would be ample time to "sanitize" that laboratory by removing the toxin producing part and hiding the product before the inspection team arrived.

When the time came to attack another nation, perhaps the United States, that small amount of toxin spliced with the flu gene would be cloned and, in a short time, a sufficient supply would be produced to launch a genetically engineered chemical attack.

Another advantage of such a weapon is that it does not require military hardware or military personnel. Commercial aircraft, cargo ships laying off shore until the wind was blowing in the right direction or simply saboteurs can be used to distribute the agent.

When Americans became ill and went to their physician they would be told "you have the flu," only to be killed by the toxin. Imagine the panic that would result if that toxin were released in some place such as the New York City subway system, where it would affect thousands of people.

This is not science fiction; it is technically possible. Yet this Convention completely ignores the threat. In addition, for some strange reason, many influential scientists have the strange belief every molecular scientist throughout the world, regardless of his economic condition, political beliefs or the form of government under which he lives can be persuaded to adopt a moral code where each scientist not only would refuse to participate in the development of any genetically engineered agent of war but, if I may use the word, "rat" on any other scientist who is persuaded, by political pressure or monetary reward, to engage in that activity.

Ratification of this Convention places the United States in support of that unrealistic position and would be a mistake this country might not live to regret.

III. RATIFICATION OF THIS CONVENTION WOULD, PRESUMABLY FOR ALL TIME, PREVENT OUR ARMED FORCES FROM EVER HAVING ANY OFFENSIVE CAPABILITY IN CHEMICAL OR BIOLOGICAL WARFARE TO RESPOND TO A C/B ATTACK

The Convention, in its preamble, calls for the complete disarmament of all offensive weapons. All that is permitted, under Article X, is protective equipment, sensors, alarm systems, decontaminants, antidotes and medical supplies.

The myth that purely defensive equipment is sufficient to repulse a chemical or biological attack is one that has been foisted on the American public and elected officials for years as part of the anti-chemical warfare propaganda.

I recall the statement of a member of the House Armed Services Committee, when the Reagan administration sought approval to produce binary munitions. A Congresswoman said "Get the finest defensive equipment possible but don't develop chemical weapons even for retaliation."

That attitude could have brought many casualties during the Gulf War, where we faced an enemy who, in the recent past, had used chemicals effectively. In an hysterical editorial the *Los Angeles Times* declared "The United States must not retaliate with such weapons even if Saddam Hussein launches a chemical or biological attack. These are unthinkable weapons of war and the United States must not use them * * * under any circumstances."

We can be thankful that, for whatever reason, Saddam Hussein did not use chemicals during the Gulf War. Had he done so we had no real capability to respond in kind.

Going back to that Congressional debate on binary weapons, I wrote that member of Congress suggesting she obtain a gas mask and a suit of protective clothing from the Army then try running around the block where she lived just once. "I'll guarantee you will be one tired Congresswoman," I said.

Yet that exertion is nothing compared to performing combat operations for an extensive period of time on a chemical battlefield.

The best answer to that Congresswoman's statement and that editorial was made, years before, by an American chemical officer attached to NATO forces in Germany during the cold war.

In one of the few television programs that gave an objective view of chemical warfare the commentator asked that Chemical Officer what he would do if Warsaw Pact tanks appeared over the horizon and, at the same time, a chemical attack was launched against his NATO forces.

The officer replied "If my men come under chemical attack it is my job to make him (the hostile force) just as miserable as I am."

Here is the most important fact about chemical warfare that has been ignored by the news media and by political leaders for years. Requiring our forces to don protective clothing, constantly wearing a gas mask and having to frequently decontaminate clothing and military equipment degrades our fighting ability by at least 50 percent unless we have the ability to retaliate with our own, and hopefully superior, chemical weapons forcing them to don masks and protective clothing, decontaminate their clothing and equipment, including men and equipment in their rear echelons.

I have never been able to understand why it is that people, including some in high places in government, can become hysterical over the use of chemical weapons when no one suggests that our armed forces get rid of flame throwers, that burn the enemy alive, or fragmentation bombs and grenades that tear a human being apart.

At Iwo Jima the Japanese General left the beachhead undefended. Instead, he had his men dig caves in the mountain so when our forces started up Mount Surabachi they were subject to withering fire from an enemy occupying the high ground and protected by caves.

Admiral Nimitz figured the Japanese strategy and, assured by our Chief Chemical Officer the Japanese did not have adequate protection against chemicals available to our forces, made the necessary request from the President to drench the mountain with chemicals which would have seeped into those caves, resulting in a large number of enemy casualties which, in turn, would have reduced the number of Americans killed and wounded.

However President Roosevelt denied Admiral Nimitz' request. Calling it "the toughest decision" he faced in World War II, Nimitz declared "it cost the lives of many fine Marines."

By then in retirement the former Chief Chemical Officer, General Creasy, was more blunt. He called it "a crime against the American soldier."

Why it was "moral" to kill those 21,000 Japanese by burning them alive with flame throwers and white phosphorous but not before, dug into caves on Mount

Surabachi, they inflicted 25,000 casualties on our forces is something I could never understand.

This past history of American involvement with chemical warfare, plus the future threat, both to our military and civilians, from genetically engineered chemical agents compelled me to request this opportunity to address your Committee and urge you to refuse to ratify this Convention.

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